



Forskningens Dag 2010

Abstracts og program

Forskningens Dag 2010 er tilrettelagt af:

Molekylærbiolog, Torben Lüth Andersson, Hæmatologisk Afdeling

Overlæge Henrik Krarup, Klinisk Biokemisk Afdeling

Seniorforsker Birgitte Schantz Laursen, Forskningsenhed for Klinisk Sygepleje

Centerchef Carl-Otto Gøtzsche, Hoved- og Hjertecentret

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Velkommen til Forskningens Dag 2010 på Aalborg Sygehus, Århus Universitetshospital

Kære deltager

Velkommen til endnu en Forskningens Dag på Aalborg Sygehus. Som det efterhånden er blevet tradition, er det en festdag, hvor ansatte i det nordjyske sundhedsvæsen, politikere og samarbejdspartnere kan komme tæt på de mangeartede forskningsaktiviteter, som finder sted på hospitalet og i samarbejde med den øvrige del af Århus Universitetshospital.

Formiddagens program har temaet "Fra forskning til praksis". I den anledning har vi inviteret den anerkendte forsker inden for hjertemedicin Henning Rud Andersen, kvinden bag diabetes 2-lægemidlet liraglutide - den første once-daily GLP-1 analog (Victoza®) Lotte Bjerre Knudsen samt vinderen af Videnskabsministeriets Forskningskommunikationspris 2009 Maja Horst.

Efter frokost vil sygehusets egne forskere præsentere igangværende eller nyligt afsluttede projekter. Vi har modtaget et rekordstort antal abstracts fra forskere fra en bred vifte af faggrupper, som alle gerne vil præsentere eksempler på deres arbejde. De i alt 94 abstracts har vi samlet i denne bog. 16 af dem vil blive præsenteret mundtligt i de to parallelle foredragssessioner i henholdsvis Medicinerhusets auditorium og kantine. De øvrige abstracts vil blive præsenteret som postere.

Vi håber, du får en god og inspirerende dag.

Velkommen!

Planlægningsudvalget

Dagens program

8.30-8.40 – Velkomst

v. Morten Noreng, cheflæge, Aalborg Sygehus, Århus Universitetshospital

8.40-9.00 – Velkomst og introduktion til Forskningens Dag

v. Lars Hvilsted Rasmussen, forskningschef, Aalborg Sygehus, Århus Universitetshospital

9.00-9.45 – ”Forskningsskommunikation – fra forskning til praksis og tilbage igen”

v. lektor, ph.d. Maja Horst, Institut for Organisation, Copenhagen Business School

9.45-10.15 – Kaffepause og posterpræsentationer

10.15-11.00 – ”Kunstige hjerteklapper - fra idé til internationalt gennembrud”

v. overlæge dr. med. Henning Rud Andersen, Århus Universitetshospital, Skejby

11.00-11.15 – Spørgsmål og diskussion

11.15-12.00 – GLP-1 - fra opfindelse til lægemidler

v. kemiingeniør Lotte Bjerre Knudsen, Novo Nordisk

12.00-12.45 – Frokost og posterpræsentationer

12.45-13.55 – Parallelle foredragssessioner

Tidspunkt	1A: Auditoriet	1B: Kantinen
12.45-13.00	Abstract # A	Abstract # E
13.03-13.18	Abstract # B	Abstract # F
13.21-13.36	Abstract # C	Abstract # G
13.39-13.54	Abstract # D	Abstract # H

13.54-14.20 – Kaffepause og posterpræsentationer (afstemning lukker)

14.20-15.30 – Parallelle foredragssessioner

Tidspunkt	2A: Auditoriet	2B: Kantinen
14.20-14.35	Abstract # I	Abstract # M
14.38-14.53	Abstract # J	Abstract # N
14.56-15.11	Abstract # K	Abstract # O
15.14-15.29	Abstract # L	Abstract # P

15.40 – 15.50 – Præmiering af de tre bedste postere (foyeren)

15.50 – 16.00 – Afslutning (foyeren)

v. Lars Hvilsted Rasmussen, forskningschef, Aalborg Sygehus, Århus Universitetshospital

Forskningskommunikation – fra forskning til praksis og tilbage igen

Maja Horst, lektor, ph.d., Institut for Organisation, Copenhagen Business School

I sit indlæg vil Maja Horst tage udgangspunkt i, at forskningskommunikation handler om meget mere end at formidle videnskabelig viden i lettilgængelig form. I det moderne videnssamfund er kommunikation om forskning en central aktivitet, som handler om, hvordan vi skaber, bruger og evaluerer viden. Med udgangspunkt i eksempler fra sit eget arbejde med forskningskommunikation vil Maja Horst give et bud på, hvordan vi udvikler metoder til forskningskommunikation, som gør det muligt for alle parter at lære noget nyttigt. Forskningskommunikation bør være en integreret del af selve forskningen, fordi det kan være med til at gøre forskningen endnu bedre.

Kunstige hjerteklapper - fra idé til internationalt gennembrud

Henning Rud Andersen, overlæge, dr. med., Århus Universitetshospital, Skejby

I 1989 fik Henning Rud Andersen en original idé til behandling af syge hjerteklapper. Han ville indsætte kunstige hjerteklapper uden en hjerteoperation. Han designede og byggede selv hjerteklappen med tilhørende katetre og afprøvede opfindelsen på grise. Efter 3 måneders udviklingsarbejde kunne han dokumentere, at det fungerede. I samarbejde med Dansk Teknologisk Institut blev der udtaget patent på opfindelsen, og efterfølgende blev der taget kontakt til først dansk industri, derefter skandinavisk industri og til sidst europæisk industri, men ingen var interesseret i opfindelsen. Hverken læger eller industri troede på idéen. En medvirkende faktor var, at omkostningerne til udvikling af en første prototype til indsættelse i et menneske var ca. 200 millioner kroner, og omkostningerne til udvikling af et kommercielt og salgbart produkt var ca. 2 milliarder kroner. Et dansk amt viste interesse og kontaktede Henning Rud Andersen med tilbud om at investere 50.000 kr. til produktudviklingen. I slutningen af 1990'erne begyndte internationale forskningsgrupper at arbejde med idéen. Den første prototype blev indsat i et menneske i år 2000 i London, og det første kommercielle produkt kom på markedet i 2007. I år 2010 forventes indsat ca. 10.000 hjerteklapper. Produktudviklingen er foregået i USA, Israel og Frankrig, og produktionen foregår nu i USA. Internationale forskere forventer, at opfindelsen bliver det nye store gennembrud inden for behandling af hjerteklapper.

GLP-1 - fra opfindelse til lægemidler

Lotte Bjerre Knudsen, kemiingeniør, Novo Nordisk

Lotte Bjerre Knudsen vil fortælle om tilblivelsen af diabetes 2-lægemidlet liraglutide - den første once-daily GLP-1-analog (Victoza®). Heriblandt hvordan tidlige kliniske forsøg fra universitetshospitaler viste, at GLP-1 var et kandidat til et nyt lægemiddel til sænkning af blodsukker uden risiko for hypoglykæmi, og hvordan det senere viste sig også at føre til vægttab. Novo Nordisk har lavet en lang række af prækliniske og kliniske forsøg, der viser, at liraglutide har mange gode effekter på både diabetes og vægtregulering. Ny litteratur antyder også, at GLP-1 og liraglutide kan have en beskyttende effekt både centralt og kardiovaskulært.

Program for foredragssessioner

Foredragssession 1A - Auditoriet, Medicinerhuset kl. 12.45-13.55

Moderator: Ledende bibliotekar, Conni Skrubbeltrang

Kl. 12.45-13.00

Abstract # A: Farming exposure leads to less allergic sensitisation

Ph.d.-studerende Grethe Elholm, Arbejdsmedicinsk Klinik, Aalborg Sygehus

Kl. 13.03-13.18

Abstract # B: Intraoperativ højfrekvent Ekkokardiografi af koronaranastomoser. Status

Afdelingslæge, ph.d., postdoc Niels-Henrik Staalsen, Hjertelungekirurgisk Afdeling, Aalborg Sygehus

Kl. 13.21-13.36

Abstract # C: Ændring i holdning til organdonation blandt intensivpersonale i Region Midt og Region Nord

Overlæge Preben Sørensen, Neurokirurgisk afdeling K, Aalborg Sygehus

Kl. 13.39-13.54

Abstract # D: Time-of-Day Influences Postural Balance in Healthy Elderly Individuals

Idrætsfysiolog Martin Grønbech Jørgensen, Geriatrisk Afdeling, Aalborg Sygehus

Foredragssession 2A - Auditoriet, Medicinerhuset kl. 14.20-15.30

Moderator: Professor Søren Risom Kristensen

Kl. 14.20-14.35

Abstract # I: Prevalence of Venous Thromboembolism in Upper Gastrointestinal Cancer at Time of Diagnosis

Klinisk assistent Anders Christian Larsen, FBE Kirurgi Syd, Kirurgisk Gastroenterologisk Afdeling, Aalborg Sygehus

Kl. 14.38-14.53

Abstract # J: Correlating mRNA and miRNA Expressions to Melphalan Resistance in Multiple Myeloma

Forskningsvikar Johanne Marie Holst og biostatistikere Steffen Falgreen Larsen, Hæmatologisk Afdeling, Aalborg Sygehus

Kl. 14.56-15.11

Abstract # K: The Etiology Behind Hydatidiform Mole

Ph.d.-studerende Lotte Andreasen, Klinisk Genetisk afdeling, Aalborg Sygehus

Kl. 15.14-15.29

Abstract # L: Hearing Improvements in Laser-Assisted Versus Micro-Drill Stapedotomy

Projektmedarbejder Christian Gade Nissen, Øre-Næse-Halskirurgisk Afdeling, Aalborg Sygehus

Foredragssession 1B - Kantinen, Medicinerhuset kl. 12.45-13.55
Moderator: Bibliotekar, ph.d.-studerende Jens Peter Andersen

Kl. 12.45-13.00

Abstract # E: Virker rygeloven?

Ledende biostatistiker Claus Dethlefsen, Kardiovaskulært Forskningscenter, Aalborg Sygehus

Kl. 13.03-13.18

Abstract # F: Staphylococcus aureus skin and soft tissue infections in primary healthcare in Denmark: a 12-year population-based study

Læge Michael Dalager-Pedersen, Infektionsmedicinsk Afdeling, Aalborg Sygehus

Kl. 13.21-13.36

Abstract # G: Urethra-sparing radiotherapy of prostate cancer using a Ni-Ti stent

Hospitalsfysiker Dennis Tideman Arp, Afdeling for Medicinsk Fysik, Onkologisk Afdeling, Aalborg Sygehus

Kl. 13.39-13.54

Abstract # H: Incidence, risk factors and outcome in children with thrombosis-a population based study in Denmark 1994-2006

Læge Ruta Tuckuviene, Klinisk Biokemisk Afdeling, Aalborg Sygehus

Foredragssession 2B - Kantinen, Medicinerhuset kl. 14.20-15.30
Moderator: Professor Erik Berg Schmidt

Kl. 14.20-14.35

Abstract # M: Quality of Life, what is that?

Sygeplejerske Vibeke Høgh, Kardiologisk Afdeling, afsnit S1, Aalborg Sygehus

Kl. 14.38-14.53

Abstract # N: HER4 is downregulated in lymphnode metastases compared to the primary breast carcinoma

Ph.d.-studerende Anja Brüggmann, Patologisk Institut, Aalborg Sygehus

Kl. 14.56-15.11

Abstract # O: Follow-up of neonatal non-haemolytic hyperbilirubinemia in danish term and near-term infants with total serum bilirubin > 420 umol/l.

Klinisk assistent Pernille Kure Vandborg, Børneafdelingen, Aalborg Sygehus

Kl. 15.14-15.29

Abstract # P: Pain associated adaptive cortical reorganisation in chronic pancreatitis

Reservelæge, ph.d.-studerende Søren Schou Olesen, Mech-Sense, Medicinsk Gastroenterologisk Afdeling, Aalborg Sygehus

Abstracts

Mundtlig præsentation

A) Farming exposure leads to less allergic sensitisation

Auditoriet kl. 12.45-13.00

Forfattere:

G Elholm, V Schlünssen, T Sigsgaard, C Hjort, BM Bibby, I Basinas, Ø Omland

Abstract:

Objectives: Farmers are exposed to a wide range of allergens and supposedly run the risk of developing allergy and asthma. However the prevalence of atopic sensitization and atopic asthma has been reported to be low in farmers.

Aim: We aim to describe the changes of allergen sensitization over time in The Danish Farming Cohort (SUS).

Methods: The SUS cohort consists of 1964 young farmers and 407 non-farming male controls. The participants were skin prick tested twice for sensitization to 15 different allergens, first during the SUS study (1992-1994) and subsequently 52% were re-investigated during the follow-up SUS12 study (2006-2008).

Results: We found an overall lower sensitisation rate among farmers compared to controls at both baseline (farmers 18% and controls 26%, $p=0.012$) and follow-up (farmers 30% and controls 41%, $p=0.004$). The low sensitisation rate among farmers compared to the controls was only seen in subjects born and raised on a farm regardless of smoking and asthma status. Furthermore we saw a tendency of an accelerated loss of sensitisation among farmers compared to the controls (farmers 18% and controls 9%, $p=0.12$). Additionally a tendency of smaller increase in sensitisation was seen among farmers compared to the controls (farmers 18% and controls 23%, $p=0.22$).

Conclusion: The analyses show that farmers born and raised on a farm with continued farming exposure maintain a low sensitisation rate and we observed a tendency to an increased loss of sensitisation in farmers compared to the non-exposed controls.

This supports the theory that farming exposure has a protective effect against development of allergy.

Indsendt af:

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Forskningsansvarlig på afdelingen: Øyvind Omland

B) Intraoperativ højfrekvent Ekkokardiografi af koronaranastomoser. Status

Auditoriet kl. 13.03-13.18

Forfatter:

Niels-Henrik Staalsen

Abstract:

Baggrund: Den tekniske kvalitet af koronaranastomoser evalueres, når bedst, med flowmåling. Trods dette er op til 9 % af koronaranastomoserne mere end 50% forsnævrede - vi finder dem ikke. Højfrekvent ekkokardiografi har en sensitivitet (0,98) and specificitet (1.0) for detektion af ”teknisk ikke optimale anastomoser”.

Formål: At validere og udvikle målemetoder/teknikker, således at intraoperativ ekkokardiografi af koronaranastomoser muliggøres.

Materiale/Metoder: Som model anvendtes 80 kg grise. Grisene fik foretaget bypass operation med vanlig OPCAB teknik, Lima-LAD. Længde af bypass graft, placering af anastomose og anastomosegeometri var standardiserede. LAD var lukket proximalt med ligatur ¼ LAD-længde fra AV-furen. Alle grise fik Heparin, ACT holdtes over 440. Alle grise blev AAI pacet, frekvens=80. Anæstesi og væsketerapi var standardiserede. Grisene blev monitoreret med invasivt BT, CVP, EKG, graftflow og CO (pulmonal flow), og de simultant optagede data blev lagret på en Medistim VeriQ-flowmåler, efter forsøg exporteret og analyseret med et på Aalborg Ingeniørfakultet udviklet dataanalyse-program, Graftgui. For at kunne optage ekkobilleder af de distale anastomoser på bankende hjerte udvikledes en probeholder, Echoclip. Med en GE i13I (13 MHz) ekkoprobe monteret på Echoclippen optog vi ekkoloops af koronaranastomoser i et længdesnits- og 3

tværnsnits planer på en Vivid-4 ekkomaskine. Data eksporteredes til et på Aalborg ingeniør fakultet udviklet analyseprogram, som kan detektere karvægge og -arealer. Studier mhp. bestemmelse af reproducerbarhed og accuracy er foretaget og analyse pågår pt.

Konklusion: Højfrekvent ekkokardiografi af koronar-anastomoser på bankende hjerte er mulig og enkel i dette setup, billedkvaliteten god.

Bemærk: Forfatteren og ledende overlæge Jan Jesper Andreasen har et pct-patent kørende på Echoclip.

Indsendt af:

Afdelingslæge, phd, postdoc Niels-Henrik Staalsen, Hjertelungekirurgisk Afdeling, Aalborg Sygehus
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Forskningsansvarlig på afdelingen: Jan Jesper Andreasen

C) Ændring i holdning til organdonation blandt intensivpersonale i Region Midt og Region Nord

Auditoriet kl. 13.21-13.36

Forfattere:

Preben Sørensen, overlæge, Neurokirurgisk Afdeling K, Lone Bøgh, MSC, Dansk Center for Organdonation, Skejby Sygehus

Abstract:

Det er velkendt at holdning til organdonation blandt intensivpersonale har betydning for antallet af organdonationer. Undersøgelsen har til formål at undersøge om der er sket en ændring i holdning til spørgsmålet i løbet af en 10 års periode.

En spørgeskemaundersøgelse blev i 2009 gennemført på de intensive afdelinger i region Midt og region Nordjylland, og resultaterne sammenlignet med en tilsvarende undersøgelse fra 2001 gennemført i samme regioner.

I 2001 fik plejepersonale og læger på 17 intensivafdelinger tilsendt 1168 spørgeskemaer og 59% besvarede, mens 66,8 % af 1177 personer besvarede spørgeskemaet i 2009. I 2009 havde 726 (92,3%) en positiv indstilling til organdonation, 22 personer var imod, mens 32 ikke havde taget stilling. Dette var en signifikant forbedring i forhold til resultatet i 2001 ($p < 0,001$). Holdningsændringer var mest udtalt i sygeplejegruppen.

Villighed til at donere egne organer i tilfælde af hjerne-død var ligeledes steget signifikant fra 49,2% til 69,2% ($p < 0,001$) i både sygeplejegruppen og lægegruppen. Der var ligeledes en signifikant stigning i andelen af personale, der havde diskuteret holdning til hjernedød med sin familie.

Undersøgelsen dokumenterer en signifikant ændring af holdning til organdonation blandt personalet på de intensive afdelinger i region Midt og region Nordjylland. Årsagerne til denne ændring kan være mange, men fra slutningen af 2008 har der været ydet en multidisciplinær indsats tilrettet personalet på intensivafdelingerne for at øge viden om organdonation, færdigheder til at håndtere organdonation, og afklare etiske spørgsmål, hvilket kan have bidraget til at donationsraten i de to regioner steg markant i 2009.

Indsendt af:

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Forskningsansvarlig på afdelingen: Preben Sørensen

D) Time-of-Day Influences Postural Balance in Healthy Elderly Individuals

Auditoriet kl. 13.39-13.54

Forfattere:

Gronbech M^{1,5}, Rathleff M.S², Laessoe U³, Caserotti, P^{4,5}, Nielsen O.B.F.¹, Aagaard P⁵ ¹Department of Geriatrics, Aarhus University Hospital, Aalborg Hospital, Denmark ²Orthopedic Division, North Denmark Region, Aalborg Hospital, Aarhus University Hospital, Denmark ³Center for Sensory-Motor Interaction (SMI), Aalborg University, Denmark ⁴National Institute of Health, Bethesda, Washington, USA ⁵Institute of Sports Science and Clinical Biomechanics, University of Southern Denmark, Denmark

Abstract:

Background: Postural balance assessment is performed in both clinical and basic research settings. During a 24-hour time span the human body is influenced by circadian rhythms, which affects our physiology and physical performance throughout the day. The time-of-day interaction on postural balance is unknown in healthy elderly people. The aim of this study was to investigate the effect of time-of-day on postural balance in healthy elderly individuals.

Methods: Center of pressure (CoP) excursion was measured (100 Hz) by force plate analysis in 22 healthy elderly individuals during 30-s narrow quiet bilateral stand. Measurements were performed at 9:00 a.m., 12:30 p.m. and 4:00 p.m. on the same day. Postural balance was quantified by total sway length, velocity-moment, confidence ellipse area and total sway area.

Results: A highly significant effect of time-of-day was observed for some but not all CoP parameters. Incre-

ased confidence ellipse area (mm²) from 38.5±15.3 to 47.4±16.9 (P=0.0001), sway area (mm²) from 611.8±248.4 to 700.8±261.7 (P=0.002) and velocity-moment (mm²/s) from 62.2±25.2 to 72.5±27.1 (P=0.003) were observed in the afternoon relative to the morning. Similar trends were observed from noon to afternoon (P<0.001).

Conclusions: The study demonstrates that time-of-day influences postural balance in healthy elderly individuals for selected CoP parameters. These findings have important scientific and clinical relevance, as they imply that time of day should be controlled when assessing postural balance in healthy elderly individuals.

Indsendt af:

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Forskningsansvarlig på afdelingen: Ole B. F. Nielsen

E) Virker rygeloven?

Kantinen kl. 12.45-13.00

Forfattere:

Claus Dethlefsen, MSc, PhD¹, Søren Lundbye-Christensen, MSc, PhD¹, Anette Luther Christensen, MSc¹, Kim Overvad, MD, PhD^{1, 2, 1} Kardiologisk Afdeling, Kardiovaskulært Forskningscenter, Aalborg Sygehus, Århus Universitets Hospital, ² Afdeling for Epidemiologi, Institut for Folkesundhed, Aarhus Universitet

Abstract:

Siden den 15. august 2007 har rygning med få undtagelser været forbudt i offentlige bygninger, barer og restauranter, samt på arbejdspladser i Danmark. Forventningen er, at dette vil motivere rygere til at stoppe, afholde unge fra at begynde at ryge, og beskytte befolkningen mod passiv rygning.

Vi studerede forekomsten af kardiovaskulære sygdomme i Danmark, idet vi forventede, at den lavere eksponering for tobaksrøg ville have en akut effekt på sygdomsforekomsten. Lignende studier fra USA (Sargent et al, 2004; Bartecchi et al, 2006) har vist op mod 40% reduktion i hjertetilfælde seks måneder efter indførelsen af en rygelov.

I Landspatientregistret identificerede vi alle daglige førstegangs tilfælde i Danmark fra den 15. august 2002 til den 15. august 2009 af følgende sygdomme: akut myokardieinfarkt (N=58.697), apopleksi (N=99.850) og venøs tromboembolisme (N=43.393).

Vi anvendte Poisson regressions analyser til at bestemme effekten af rygeloven og inddrog både trend- og sæsonef-

fekter. Analyserne blev gennemført samlet samt i køns- og aldersstrata.

For akut myokardie infarkt og apopleksi fandt vi ikke-signifikante reduktioner i sygdomsforekomsten på under 5% i alle strata efter rygelovens indførelse. For venøs tromboembolisme var der for både mænd og kvinder en signifikant ændring i sygdomsforekomsten fra en årlig stigning på 5% i sygdomsforekomsten før rygeforbuddet til et årligt fald på 1%.

Indsendt af:

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Forskningsansvarlig på afdelingen: Kim Overvad

F) Staphylococcus aureus skin and soft tissue infections in primary healthcare in Denmark: a 12-year population-based study

Kantinen kl. 13.03-13.18

Forfattere:

Michael Dalager-Pedersen^{1,2}, Mette Søgaard^{1,3} and Henrik Carl Schönheyder^{1, 1} Department of Clinical Microbiology, Aalborg Hospital, Aarhus University Hospital, Aalborg, ²Department of Infectious Diseases, Aalborg Hospital, Aarhus University Hospital, Aalborg and ³ Department of Clinical Epidemiology, Clinical Institute, Aarhus University Hospital, Aarhus, Denmark.

Abstract:

A rise in community-onset Staphylococcus aureus infections has been observed in European countries. To ascertain secular trends of S. aureus infections in primary healthcare in Denmark, we conducted this register-based study in North Denmark Region, 1997-2008. We identified all skin and mucosa specimens obtained by general practitioners and all prescriptions for the preferred oral anti-staphylococcal antibiotic, dicloxacillin. Repeat observations within a 12-month period were excluded prior to calculation of age and gender standardized incidence rates per 100.000 person-years.

We included 108,758 specimens of which 42,778 (39%) yielded S. aureus. The annual incidence rate of specimens doubled during the study period reaching 2,399 in 2008. The overall rate of S. aureus isolates increased 2-fold to a stable rate at about 850, but for isolates from children and for impetigo specimens the increase was steeper with a peak in 2002. 156,462 dicloxacillin prescriptions had been redeemed and the annual prescription rate increased 2.5-fold, peaking at 3,714 in 2007.

In conclusion, annual rates of specimens, *S. aureus* infections and dicloxacillin prescriptions more than doubled in primary healthcare during the 12-year period. A major impetigo epidemic and calls for antibiotic stewardship with increased utilization of specimens were contributing factors.

Indsendt af:

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Forskningsansvarlig på afdelingen: Henrik Nielsen

G) Urethra-sparing radiotherapy of prostate cancer using a Ni-Ti stent

Kantinen kl. 13.21-13.36

Forfattere:

Dennis Tideman Arp, Jakob Borup Thomsen, Jesper Carl.

Abstract:

Radiotherapy of prostate cancer patients is associated with a number of side-effects including urinary complications. The urinary side-effects originate from irradiation of bladder and urethra. A reduction in dose to these organs potentially lowers the side-effects. In this theoretical study, we have investigated the possibility of reducing dose to urethra by use of modern radiotherapy. Radiotherapy planning is usually based on a CT scan with urethra barely visible. Usually, delineation of urethra is therefore impossible. In Aalborg the prostate cancer patients have a Ni-Ti stent inserted in urethra before treatment. The stent is primarily used as a crosshair for daily positioning before treatment delivery. However, because the stent is placed in urethra and clearly visible on the CT scan, it may also be used for delineation of urethra. We performed a study including 20 patients. Following the delineation, planning of the treatment was performed incorporating dose constraints to urethra. Because urethra is located in the middle of the prostate, there is a compromise between sparing urethra (lowering side-effects) and delivering prescribed dose to the tumour (tumour control). To investigate this issue, a theoretical radiobiological model was applied. Using this model we calculated the tumour control probability (TCP) and urethra complication probability (UCP) as a function of dose to urethra. These calculations predict the feasible urethra dose reduction without compromising TCP. Furthermore we obtain an estimate of the reduction in UCP due to the lower urethra dose. Potentially, this concept can be used for treating prostate cancer patients with fewer side-effects.

Indsendt af:

Hospitalsfysiker Dennis Tideman Arp, Afdeling for Medicinsk Fysik, Onkologisk Afd., Aalborg Sygehus
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H) Incidence, risk factors and outcome in children with thrombosis-a population based study in Denmark 1994-2006

Kantinen kl. 13.39-13.54

Forfattere:

Tuckuviene R ^{1,2}, Helgestad J ², Christensen AL ¹, Johnsen SP ³, Kristensen SR¹, ¹⁾ Department of Clinical Biochemistry, Center for Cardiovascular Research, Aalborg Hospital, Aarhus University Hospital, Aalborg, ²⁾ Department of Pediatrics, Aalborg Hospital, Aarhus University Hospital, Aalborg, ³⁾ Department of Clinical Epidemiology, Aarhus University Hospital, Aalborg and Aarhus.

Abstract:

Aim: To assess the incidence, risk factors, treatment modalities, and outcome of venous and arterial thromboses among Danish children (0-18 years).

Methods: This population-based historical follow-up study comprises all children with arterial or venous thrombosis, in Denmark, between 1994 and 2006. Patients with thrombosis were identified in the nationwide registry of patients. Data on patients with symptomatic thrombosis were combined with information from medical records, and all diagnoses were validated.

Results: Incidence rates (95% confidence interval) are presented as number per 100.000 person-years. In total, 623 cases of thrombosis have been identified corresponding to an incidence rate of 1.6 (1.4-1.8) and 2.1(1.9-2.3) of cerebral thrombosis (arterial ischemic stroke and sinovenous thrombosis) and venous thromboembolism, respectively. Peak incidences of thrombosis were in neonates (males comprising 67.0%) and in adolescents aged 15-18 years (females comprising 71.0%). Trend of incidence rates of all type thromboses was stable in 1994-2006. The annual increase of 13.4% (p=0.003) was seen in male infants with arterial ischemic stroke.

Underlying conditions or additional risk factors precipitating thrombosis were present in 72.3% of patients. Thrombophilia was diagnosed in 141 out of 436 cases investigated. Supportive care was given to 172 children, 442 patients received antithrombotic treatment. All

cause fatality was 7.4 %; death was directly attributable to thrombosis in 2.1 %. Morbidity associated with thrombosis was reported in 57.0% of patients.

Conclusions: The study shows age and gender disparities in incidence rates of pediatric thrombosis; stable trend of overall thrombosis; and a significant morbidity of thrombosis in pediatric population in Denmark.

Indsendt af:

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I) Prevalence of Venous Thromboembolism in Upper Gastrointestinal Cancer at Time of Diagnosis

Auditoriet kl. 14.20-14.35

Forfattere:

A.C. Larsen¹, T. Dabrowski², R. Vincents Fisker³, S. Risom Kristensen⁴, B. Kuno Møller⁵, O. Thorlacius-Ussing¹. ¹) Department of Gastroenterological Surgery, Aalborg Hospital, Aarhus University Hospital, ²) Department of Radiology, Aalborg Hospital, Aarhus University Hospital, ³) Department of Nuclear Medicine Aalborg Hospital, Aarhus University Hospital, ⁴) Department of Biochemistry, Aalborg Hospital, Aarhus University Hospital, ⁵) Department of Clinical Immunology, Aarhus University Hospital, Skejby.

Abstract:

Background: Pancreatic cancer is a strong risk factor for deep vein thrombosis (DVT) and pulmonary embolism (PE), collectively known as venous thromboembolism (VTE). However, the prevalence of symptomatic as well as asymptomatic VTEs in patients with pancreatic cancer or other upper gastrointestinal adenocarcinoma is unknown. We examined the prevalence of VTE at time of cancer diagnosis in these patients.

Materials and methods: All patients admitted to the department of gastroenterological surgery, Aalborg hospital, with a suspected upper GI cancer between February 2008 and September 2009 were offered screening for VTE according to our protocol. Investigations comprised of clinical examination, plasma D-dimer, flow-doppler ultrasonography (US) of both legs, and thoracic CT or PET-CT scan modified also to diagnose PE.

Results: We included 158 patients of which 23 were diagnosed to have benign diseases. Of 135 patients with cancer 53 had pancreas cancer, 9 had cholangiocarcinoma, and 73 had gastric cancer including cancer at the gastroesophageal junction. Only patients with pancreatic cancer or cholangiocarcinoma had a VTE at time of cancer diagnosis. Seven (7 of 53 = 13.2%; 95%CI: 5.5% - 25.3%) VTEs at time of diagnosis in pancreatic cancer patients comprised of 3 with DVT, 1 with PE and 3 with both DVT and PE. One (1 of 9 = 11.1%; 95%CI: 0.3% - 48.2%) patient with cholangiocarcinoma had both DVT and PE.

Conclusion: Patients with pancreatic cancer had a high prevalence of VTE at time of diagnosis. No VTE was observed in patients with gastric cancer or benign diseases.

Indsendt af:

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J) Correlating mRNA and miRNA Expressions to Melphalan Resistance in Multiple Myeloma

Auditoriet kl. 14.38 – 14.53

Forfattere:

Johanne M. Holst, Steffen Falgreen, Kirsten Fogd, Anders E. Bilgrau, Mette Nyegaard, Karen Dybkaer, Hans E. Johnsen, Martin Boegsted

Abstract:

Introduction: Today, numerous patients suffering from multiple myeloma (MM) are continuously treated with high dose melphalan therapy. Boegsted, Holst and Fogd et al. (2010, Submitted) have proposed a melphalan resistance index based on a model system of B-cell cancer cell lines and gene expression profiling. The index was capable of predicting clinical outcome of MM patients prior to treatment. The objective of the present study was to investigate whether or not the addition of microRNA (miRNA) microarray profiling generates a superior predictive signature by correlating miRNA expressions to melphalan resistance followed by identification of potential mRNA targets.

Methods: The approach was established on miRNA expression profiles and a melphalan screen of the panel of 18 B-cell cancer cell lines used in Boegsted, Holst and Fogd et al. A signature, based on the miRNA expression profiles was developed following the *modus operandi*

of Boegsted, Holst and Fogd et al. The potential mRNA targets of the predictive miRNAs will be identified using databases such as MiRanda, TargetScan and PicTar and compared with the mRNAs comprising the original resistance index. Finally, the identified signature will be validated in an external clinical dataset.

Results and Perspectives: The generation of a resistance index solely based on miRNA expression profiles showed good internal validation within the panel of B-cell cancer cell lines. The results will reveal the potential influence of miRNA regarding the development of melphalan resistance in the model system of B-cell cancer cell lines and emphasize the potential clinical impact of miRNA profiling in clinical data.

Indsendt af:

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K) The etiology behind hydatidiform mole

Auditoriet kl. 14.56-15.11

Forfattere:

Lotte Andreasen^{1,2}, Lars Bolund^{2,3}, Lone Sunde^{1,2},
¹⁾ Department of Clinical Genetics, Aarhus University Hospital, Aalborg Sygehus, Denmark. ²⁾ Department of Human Genetics, Aarhus University, Denmark ³⁾ Beijing Genomics Institute/HuaDa-Shenzhen, China.

Abstract:

Hydatidiform mole (HM) is an abnormal kind of human pregnancy, characterized by the absence of embryonic development and hydropic degeneration of chorionic villi.

HMs are divided into two types, complete (CHM) and partial (PHM) hydatidiform mole, based on the extent of trophoblast proliferation and the absence or presence of embryonic tissue. Mole tissue most often contain two sets of DNA from the father and either non from the mother or one set from the mother, however sometimes the DNA content can appear normal, with one set of DNA from each parent (biparental).

Some HMs are ensued by persistent trophoblastic disease (PTD). This can spread to other parts of the body as cancer. The knowledge about the etiology behind HM and the development of PTD is very limited but the NLRP7 gene is suspected to be connected to development of HM. Mutations in NLRP7 have been related to

familial recurrent HM (FRHM) which is often characterized as biparental HMs (BiHMs).

We have screened a cohort of 11 women with BiHMs with regard to NLRP7 mutations and only two women have a mutation in NLRP7 and one of them most likely lead to HM development, thus we detect no connection between the presence of NLRP7 mutations and the occurrence of a molar pregnancy with biparental genome contribution in general. Understanding the etiology of the abnormal differentiation in HM will aid to the understanding of normal and abnormal conception, and the etiology of cancer.

Indsendt af:

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L) Hearing improvements in laser-assisted versus micro-drill stapedotomy

Auditoriet kl. 15.14-15.29

Forfattere:

Christian Nissen, Suzan Al Kole, Kjell Tveterås, Michael Gaihede

Abstract:

Objective: To evaluate the safety and long term results of the laser stapedotomy compared to the previous micro-drill (MD) stapedotomy.

Study design: A retrospective case-study.

Material: During the study period from 1993 to 2009 a total of 470 primary stapedotomies were identified in our otosurgical database from which basic information was achieved. Complete data including 1-year follow-up was obtained in 282 cases in the MD group, while 45 cases in the laser group.

Intervention: All of the operations were conducted by two senior surgeons. The preparation of the stapes footplate was performed by either MD or laser (CO₂).

Outcome measures: Preoperative and postoperative audiological data were obtained and analysed statistically. These included Air-bone gap (ABG), Pure-tone-average (PTA) and Bone conduction (BC).

Results: Between the MD and laser group (MD – laser) we found: The pre-operative difference in ABG was 4.7 dB (P = 0.002). The post-operative ABG difference was 1.5 dB (P = 0.14), while the Functional Gain difference was 5.9 dB (P = 0.003). Postoperative complications included anacusis in 0.7 % of the MD group compared to 0 % in the laser group, while severe vertigo was found in 1.6

% of the MD group compared to 3.0 % in the laser group. Conclusion: Stapedotomy is a safe procedure for re-establishing hearing in patients with otosclerosis; complications are very rare, and they are equally distributed between the MD and laser group. The laser technique, however, allows for earlier operations, and therefore patients can benefit from longer time with functional hearing.

Indsendt af:

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M) Quality of Life, what is that?

Kantinen kl. 14.20-14.35

Forfatter:

Vibeke Høgh

Abstract:

A systematic literature study on how the concept Quality of Life (QOL) is defined, and how it is argued in research regarding patients suffering from Atrial Fibrillation (AF). Background: The concept QOL is often used in the name of health status, which can be seen as a reduction of the original meaning of the concept.

Aim: The aim was to examine how the concept QOL is defined in research regarding patients suffering from AF, and how the definition is argued.

Method: A systematic literature study on 28 articles was conducted with a hermeneutical approach. Text analysis was conducted on close analytic, communicative analytic and society analytic levels.

Results: Three main definitions of the concept and two main ways of argue was identified. The analysis shows a hidden society agreement on using the concept QOL as a measurement. Wanting to measure patient's subjective perspective on the concept QOL can be problematic.

Conclusion: To reach consensus on the concept QOL can be very difficult, because the concept in it self is wide and is seen as an abstract concept consisting of sub-concepts. It is important to ask for clear definition and argues for using the concept in scientific research regarding patients with AF

Perspectives: If the patient's perspective on their QOL is reduced into simple parameters, their original subjective perspectives may be lost.

Indsendt af:

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N) HER4 is downregulated in lymphnode metastases compared to the primary breast carcinoma

Kantinen kl. 14.38-14.53

Forfattere:

Anja Brüggmann^{1,4}, Vibeke Jensen², Jens Peter Garne³, Ebba Nexø⁴, Boe Sandahl Sørensen⁴. ¹) Institute of Pathology, Aalborg Hospital, Aarhus University Hospital. ²) Institute of Pathology, Aarhus University Hospital. ³) Department of Breast Surgery, Aalborg Hospital, Aarhus University Hospital. ⁴) Department of Clinical Biochemistry, Aarhus University Hospital.

Abstract:

Introduction: The Human Epidermal Growth Factor Receptor 4 (HER4) of the EGF receptor family has been characterized in both normal and malignant human breast tissue and HER4 overexpression has been shown to predict prolonged survival compared to HER4 receptor negative disease.

In our study we investigated the HER4 expression in normal breast tissue, primary breast carcinoma and in ipsilateral metastatic axillary lymphnodes at the time of primary breast cancer surgery.

Material and methods: Paired tissue samples from normal breast tissue and primary breast carcinomas were obtained from 169 patients. Out of these a third sample was obtained from 66 patients with metastatic lymphnodes. The mRNA expression of HER4 was quantified with real time RT-PCR and expressed relative to the house- holdgene.

Results: The mRNA expression of HER4 was significantly higher in breast carcinoma than in the paired sample of normal breast tissue (p=0.0001). The mRNA expression of HER4 was also significantly higher in breast carcinoma than in the corresponding lymphnode (p=0.015).

There was no significant difference observed in mRNA expression of HER4 between the metastatic lymphnode and the corresponding normal breast tissue (p>0.05).

Conclusion: The HER4 expression was high in the primary tumour as compared to normal breast tissue and the corresponding lymphnode. In view of previously published relations between a low expression of HER4 and a poor prognosis our results warrant further studies in

order to evaluate whether suppression of HER4 in tumour cells could be involved in lymphogenic metastatic spread.

Indsendt af:

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O) Follow-up of neonatal non-haemolytic hyperbilirubinemia in danish term and near-term infants with total serum bilirubin > 420 umol/l.

Kantinen kl. 14.56-15.11

Forfattere:

Pernille Vandborg, Gorm Greisen, Bo Hansen, Finn Ebbesen. Department of Pediatrics, Aalborg University Hospital. Department of Neonatology, Copenhagen University Hospital, Rigshospitalet, Copenhagen.

Abstract:

Background: It remains controversial whether infants with severe hyperbilirubinemia presenting with minor or no neurological symptoms in the neonatal period may sustain more subtle brain injury resulting in developmental delay.

Objective: To study if severe hyperbilirubinemia in infants with minor or no neurological symptoms in the neonatal period affects the childrens development at the age of 1-5 years.

Design/Methods: A controlled descriptive study evaluating all infants born in Denmark 2004-2007 with a gestational age (GA) > 34 weeks and severe neonatal hyperbilirubinemia with total serum bilirubin (TSB) > 420 umol/l. The study group of 211 children was identified by linking electronically stored laboratory data with the Danish personal identification number and next medical records of all children with TSB > 420 umol/l was found. A control group of 208 children matched to the study group on sex, age, GA and municipality of residence was found through the Danish birth registry. The families to the children were mailed the Ages and Stages Questionnaire (ASQ), which is a parent completed questionnaire evaluating the child's development.

Results: The response rate was 79 % for the study group and 70% for the control group. There were no differences in ASQ score between the groups, neither between the total score nor in any of the five domains: communication, gross motor, fine motor, personal-social development and problem solving.

Conclusions: We found no evidence of developmental delay in children 1-5 years old with severe neonatal hyperbilirubinemia and minor or no neurological symptoms in the neonatal period.

Indsendt af:

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P) Pain associated adaptive cortical reorganisation in chronic pancreatitis

Kantinen kl. 15.14 – 15.29

Forfattere:

Søren Schou Olesen¹, Jens Brøndum Frøkjær^{1, 2}, Dina Lelic¹, Massimiliano Valeriani³ og Asbjørn Mohr Drewes¹,
¹) Mech-Sense, Department of Gastroenterology, Aalborg Hospital, Aarhus University Hospital, Denmark
²) Department of Radiology, Aalborg Hospital, Aarhus University Hospital, Denmark, ³) Division of Neurology, Ospedale Pediatrico Bambino Gesù, IRCCS, Rome, Italy

Abstract:

Background/Aims: In various chronic pain conditions cortical reorganisation seems to play a role in the symptomatology. The aims of this study were to investigate cortical reorganisation in patients with pain caused by chronic pancreatitis (CP) and to correlate putative cortical reorganisation to clinical pain scores.

Methods: Twenty-four patients suffering from painful CP and 14 healthy volunteers were included. Patients' daily experience of pain was recorded in a pain diary. The sigmoid was stimulated electrically with simultaneous recording of evoked brain potentials (EPs) from 62 surface electrodes. The brain source localisations reflecting direct neuronal activity were fitted by a five-dipole model projected to magnetic resonance imaging of the individuals brains.

Results: Patients were hypersensitive to electrical stimulation of the sigmoid $16.4 \pm 7.0 \text{ mA}$ compared to healthy volunteers $26.1 \pm 15.0 \text{ mA}$ ($P < 0.01$). EP latencies were prolonged in the frontal region of the brain ($P < 0.01$), whereas EPs in the central and temporal regions were unchanged (all $P > 0.05$). Source analysis showed that the corresponding brain sources were located in the bilateral insula, cingulate gyrus and bilateral secondary somatosensory area. The insular dipoles were localised more posterior in the patients than in healthy subjects ($P < 0.01$). The shift in insular dipole localisation was negatively correlated with the patients' clinical pain scores ($P < 0.05$).

Conclusions: Sustained pain in chronic pancreatitis leads to functional reorganisation of the insular cortex. We suggest its physiological correlate to be an adaptive response to chronic pain. These findings support a growing body of evidence suggestive of changes in central pain processing to be important in CP.

Indsendt af:

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Abstracts

Posterpræsentation

1) 18-FDG PET/CT Surveillance In Asymptomatic Patients With Aggressive Non-Hodgkins Lymphoma

Forfattere:

Tarec Christoffer El-Galaly, Vineet Prakash, Jakob Madsen, Martin Bøgsted, Anne Bukh.

Abstract:

Patients with aggressive non-Hodgkins lymphoma (NHL) undergo follow-up surveillance with routine Computed Tomography imaging (CT) at scheduled intervals after achieving complete remission (CR). CT is widely used but 18-FDG PET/CT (PET/CT) is a promising alternative. Our study investigated the value of routine PET/CT in the surveillance of asymptomatic NHL patients.

Inclusion criteria were NHL patients with PET/CT based complete remission (CR) and PET/CT scheduled every six months during the first two years of follow-up. PET/CTs were categorized as true positive, false positive, true negative and false negative. For each positive PET/CT, maximum standardized uptake value (SUVmax) was determined.

52 patients were included and a total of 138 routine PET/CTs were performed. 119 PET/CTs (86%) were not suspicious for lymphoma and 19 PET/CTs (14%) were described as suspicious for lymphoma. We recorded 15 false positive PET/CTs. The predictive value of a positive and negative PET/CT was 21% and 100% respectively. The median SUVmax in false positive PET/CTs was 6.3 (range 2.1-12.8) and in true positive 10.2 (range 5.8-14), but the difference was not statistical significant ($p=0.06$).

A negative PET/CT strongly suggests absence of lymphoma. However, the low specificity leads to significant number of false positive PET/CTs. High SUVmax was seen more often in lymphoma than non-lymphomatous lesions but the difference was not statistical significant. Given that the PET procedure of the PET/CT was only crucial in detecting one relapse in our study, a question of poor cost-effectiveness of PET/CT could be raised as it is an expensive procedure compared with CT.

Indsendt af:

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Forskningsansvarlig på afdelingen: Ivan Noer

2) Behandling af zygomafraktur i Region Nordjylland

Forfattere:

Linda Busk Linnebjerg, læge, Øre-næse-hals-krirurgisk Afdeling
Thomas Jensen, over tandlæge, Kæbekirurgisk Afdeling

Abstract:

Formålet med denne undersøgelse er at vurdere operativ behandling af zygomafrakturer med intraoral adgang i Region Nordjylland fra 1. januar 2005 og til dags dato.

Rationalet bag denne operationsform er færre ekstraorale incisioner, som er kendt for at give komplikationer postoperativt, og der er direkte indblik til frakturen, som kan osteosynteres, såfremt frakturen er ustabil efter direkte reponering. Enkelte studier stiller spørgsmål ved, om der kan være en øget infektionsrate ved den intraorale adgang.

Studiet omfatter 141 patienter, hvoraf 74 blev konservativt behandlet og 67 patienter kirurgisk behandlet. Patienterne er fulgt et år frem fra traumedagen med klinisk kontrol efter behov men mindst 2 gange. Der blev lavet postoperativ røntgen. Data blev indsamlet retrospektivt ud fra journaloplysninger. Aktuelle poster omhandler de opererede patienter.

Alle patienter blev opereret intraoralt. 84% fik indsat osteosyntesemateriale intraoralt og 26% fik ligeledes indsat osteosyntesemateriale ekstraoralt. Alle opererede patienter opnåede frakturheling. 11% fik postoperativ infektion. 2% fik løsning af osteosyntesemateriale. 11% fik fjernet osteosyntesematerialet på et senere tidspunkt efter knogleheling. De opnåede resultater er fuldt på højde med internationale studier.

Konklusionen på studiet er, at operation med intraoral adgang med reponering og fikstion af zygomafrakturer er en velegnet metode.

Der er færre incisioner ekstraoralt og færre komplika-

tioner sammenlignet med international litteratur – dette overvejende i kraft af at man ofte kan undgå specielt den infraorbitale incision. Infektionsraten i forhold til andre studier er på linie med eller lavere i aktuelle studie, så intet tyder på øget infektionsrate ved den intraorale adgang.

Indsendt af:

Introduktionsreservelæge Linda Busk Linnebjerg, Ørenæse-hals-kirurgisk afdeling, Aalborg Sygehus
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3) BOLD MRI in fetal sheep: ductus venosus shunting during hypoxia

Forfattere:

A. Sørensen, M. Pedersen, A. Tietze, B. Stausbøll-Grøn, N. Ulbjerg

Abstract:

Objective: The purpose of this study was to investigate the changes in the tissue oxygenation in the fetal liver during hypoxia. The experiment was designed specially to investigate the oxygenation differences between the right and the left liver lobe. The fetal liver receives well oxygenated blood from the umbilical vein and less oxygenated blood from the portal vein and the hepatic artery. Shunting through the ductus venosus determines the contribution of umbilical vein blood to the perfusion of the right liver lobe. During hypoxia the shunting will increase, leaving the right liver lobe more hypoxic than the left lobe. Therefore we would expect a more pronounced reduction in BOLD signal in the right liver lobe compared to the left lobe. According to previous published data BOLD MRI provides a reliable method for measuring changes in tissue oxygenation.

Methods: 7 ewes carrying singleton fetuses at gestation 125 days (term 145 days) were included in the study. In general anaesthesia the ewes were ventilated with gas containing different levels of oxygen thereby subjecting the fetuses to hyper- and hypoxic conditions. BOLD MRI images were applied and ROI's were placed in the left and the right lobe of the fetal liver. The changes in BOLD signal was recorded. Finally comparisons were made between the signal changes of the two liver lobes.

Results: For both liver lobes there was a strong association between the BOLD signal and the oxygen supply. During hypoxia the signal was reduced, and during hyperoxia the signal was increased. In 5 out of 7 fetuses, the reduction in BOLD signal during hypoxia was more pronounced in the right liver lobe compared to the left

liver lobe. For the 2 remaining fetuses there was no difference between the two lobes.

Conclusions: During hypoxia there was a general reduction in the tissue oxygenation of the fetal liver. In 5 out of 7 fetuses the reduction in tissue oxygenation was more pronounced in the right lobe compared to the left liver lobe. This difference between the two lobes was expected because of ductus venosus shunting.

Indsendt af:

Afdelingslæge og ph.d.-studerende Anne Nødgaard Sørensen, Gynækologisk-obstetrisk Afdeling, Aalborg Sygehus
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Forskningsansvarlig på afdelingen: Professor Ole Bjarne Christensen,

4) Cavum oris cancer i Nordjylland i 2004-2008

Forfattere:

Læge Janus Bo Bechmann Jespersen Læge Mikkel Attermann Bruhn Adm. overlæge Karin Lambertsen Forskningsansvarlig overlæge Michael Gaihede

Abstract:

Formål: Vurdere hvorvidt DAHANCA-retningslinjer fra 2003 angående behandling af c. oris cancer følges, samt at få fuldendt registrering af patienterne i DAHANCA-databasen. Sidstnævnte med henblik på at få publiceret landsdækkende overlevelsesdata af c. oris cancer patienterne.

Design: Retrograd epidemiologisk studie.

Population: Samlet var 120 patienter. 99 patienter registreret i DAHANCA-databasen fra Aalborg og i LPR fra Aalborg i 2004-2008 blev der yderligere fundet 21 patienter.

Metode: En systematisk gennemgang af onkologisk og ØNH afdelingens journaler. Krydstjekket med Landspatient registreret. Opdateret DAHANCA-databasen og lavet overlevelsesdata-beregninger ad modum Kaplan Meier på samtlige orale planocellulære carcinomer fra Aalborg i 2004-2008.

Resultater og konklusion: Aalborg ØNH afdelingen følger DAHANCA-retningslinjer fra 2003 angående behandling af c. oris cancer, med overlevelsesdata svarende til international standard.

Indsendt af:

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Forskningsansvarlig på afdelingen: Michael Gaihede

5) Changes in Corneal Stroma Subjected to Molecular Cross-Linkes – a proteomic study

Forfattere:

L Urbak, N Mandel, M Funding, J Hjortdal, B Honoré and H Vorum

Abstract:

Purpose: To describe protein changes in corneal stroma subjected to molecular cross-linking through treatment with Riboflavin and subsequent irradiation with 365 nm UV-light.

Methods: Stroma from 4 human corneas was treated with Riboflavin. Afterwards 2 stromas were irradiated, and 2 stromas were not. All stromas were homogenized and analyzed by two dimensional gel electrophoresis, and significant protein changes were identified by mass spectrometry.

Results: 2 proteins were significantly up-regulated in irradiated stromas as compared to non-irradiated stromas, whereas 3 proteins were down-regulated. The 2 up-regulated proteins were: decorin and actin, and the 3 down-regulated proteins were: BIGH3, serum amyloid P, and anti oxidant protein 2.

Conclusions: Cross-linking with Riboflavin and UV-irradiation leads to increased stiffness of the stromas, which partly can be explained by the significant up-regulation of the structural proteins decorin and actin. Down-regulation of the cornea relevant proteins BIGH3, serum amyloid P, and anti oxidant protein 2 illustrates the complexity of the protein changes in the irradiated stromas.

Indsendt af:

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6) Chronic heart failure with loop-diuretics is associated with increased risk of hospitalization with pneumonia: A population-based case-control study

Forfattere:

Sinna P Ulrichsen, MSc and Reimar W Thomsen, MD, PHD

Abstract:

Background: Hospitalizations with pneumonia are increasing in Western populations, potentially due to increased prevalence of comorbidities including heart disease. There are limited data describing how chronic heart failure and related medical treatment affect the risk of pneumonia.

Objectives: To quantify the relative risk of pneumonia-related hospitalization in patients with pre-existing heart failure, according to heart failure-related medical treatment.

Methods: In this large population-based case-control study we identified adult patients with a first-time pneumonia-related hospitalization between 1994 and 2008, using health care databases in Northern Denmark. For each case, ten sex- and age-matched population controls were selected from Denmark's Civil Registration System. We used conditional logistic regression to compute relative risk (RR) for pneumonia related hospitalization among persons with and without pre-existing heart failure, overall and stratified by medical treatment. We controlled for a wide range of comorbidities, socioeconomic markers and immunosuppressive treatment.

Results: The study included 67,162 patients with a pneumonia-related hospitalization and 671,620 population controls, table 1. The adjusted RR for pneumonia-related hospitalization among persons with pre-existing heart failure was 1.82 (95% confidence interval (CI) 1.77-1.87) compared with other individuals, figure 1. The adjusted pneumonia RR was lower for heart failure patients treated with thiazides only: adjusted RR=1.64 (95% CI 1.54-1.75), as compared with patients whose treatment included loop-diuretics: adjusted RRs ranging from 1.90 (95% CI 1.80-2.01) for loop-diuretic-based regimens including digoxin to 2.05 (95% CI 1.93-2.18) for loop-diuretic-based regimens including spironolactone.

Conclusions: Patients with heart failure, in particular those treated with loop-diuretics, have a markedly increased risk of hospitalization with pneumonia.

Indsendt af:

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7) Chronic subdural haematoma - a comparison of drained vs non-drained burr hole craniostomy on recurrence rates.

Forfattere:

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Abstract:

Background: Chronic subdural haematoma is a common disease causing morbidity and mortality. Surgical treatment is usually uncomplicated, but recurrence is common, varying from 5-30 percent of cases. Several methods for reducing recurrence have been advocated. The aim was to investigate the effect of postoperative subdural drainage.

Methods: 344 medical charts were included in a retrospective study. Treatment was performed by burr hole irrigation. Groups were separated in postoperative drainage vs. non drainage.

Results: Recurrence occurred in 14,1 percent in the drainage group compared to 26,1 percent in the non drainage group ($p=0,011$), a significant finding ($p<0,05$). Complications were few with no differences between groups. Conclusion: Postoperative drainage reduces recurrence of chronic subdural haematoma without increasing the complicationrate. Our results are supported by several other studies. We recommend the use of postoperative subdural drainage.

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8) Clinical decision making in outpatient mental health care

Forfattere:

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ny; Søren Peter Olesen, Associate professor, Department 1 - Department of Sociology, Social Work and Organisation, Aalborg University, Denmark

Abstract:

Objective: This study is about clinical decision making in outpatient mental health care with specific focus on patients who suffers from schizophrenia.

Background: There is a lack of knowledge on clinical decision making (CDM) and its outcome in mental health care. The major reason for this is that research on clinical decision making in health care has primarily focused upon well-defined situations in physical conditions, while there has not been researched in clinical decision making in people with severe mental illness with its high demands on patient's treatment adherence and establishing stable therapeutic relationships.

Aims of the study: To identify the types of decision making between the patient and the therapist (paternalistic, shared and informed). Moreover, to investigate the patient's understanding of the decision making and analyse type of decision making as a possible predictor of adherence to treatment.

Methods/design: The study is an open, explorative, longitudinal study using a combination of both qualitative and quantitative methods. The study population consists of severe mentally ill out-patients with schizophrenia in the Regions of North Denmark and Central Denmark.

Expected results: Specifications of primary areas for further improvement in CDM is an expected result of the study. Recommendations will be extracted and formulated from the study data to implement elements of best practice in CDM in the routine care for people with schizophrenia in particular and severe mental illness in general. The explicit focus will contribute to strengthening of the patient perspective.

Indsendt af:

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9) Decrease in oesophageal pain threshold after acid perfusion is independent of age

Forfattere:

Christian Lottrup, Anne Lund Krarup, Asbjørn Mohr

Drewes Mech-Sense, Department of Gastroenterology, Aalborg Hospital, Aarhus University Hospital, Denmark

Abstract:

Background: Oesophageal sensation to mechanical and acidic stimuli has previously been shown to decrease with age. The aim was to compare the changes in oesophageal pain thresholds after an acid perfusion in younger and older healthy volunteers using the oesophageal multimodal pain model.

Material and methods: A younger group of healthy controls (n=47, mean age 25 ±4 years) was compared to an older group (n=13, mean age 46 ±11 years). A multimodal probe was placed in the lower oesophagus. The probe was used to induce moderate pain with mechanical, thermal and electrical stimuli before and after an acid perfusion with 0.1 N HCl.

Results: The pain thresholds decreased to all stimuli after the acid perfusion. There was no difference in the decrease of the pain threshold to mechanical stimuli in the two groups (mean change older group -20% ±23%; younger group; -27% ±21%, P=0.4). Nor was any difference to show between groups in the pain threshold decrease during thermal stimulation (mean change older group -10% ±18%; younger group -10% ±29%, P=0.8). Lastly, no difference in pain threshold decrease was measured to electrical stimuli (mean change older group -10% ±28%; younger group -12% ±24%, P=0.9). The older group tolerated more acid to reach moderate pain than the younger group (178 mL versus 155 mL, P=0.03).

Conclusion: The decrease in oesophageal pain threshold after an acid perfusion was independent of age. However, the older group tolerated a larger amount of acid during acid perfusion. The study provides important new knowledge of the basic physiology of age and pain.

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10) Deregulated expression of PRDM1 isoforms in malignant B cells

Forfattere:

Maria Bro Kloster, Hans E. Johnsen, Karen Dybkær Sørensen

Abstract:

This study focuses on B-cell malignancies of non-Hodgkin's lymphomas. The most frequent subgroup of B-cell malignancies is diffuse large B-cell lymphoma

(DLBCL). B-cell malignancies progress through accumulation of genetic alterations and consequently changes in gene expression patterns. Identification of genes and pathways, involved in the progression of B-cell malignancies, will elucidate the biology of this process.

The transcription factor, the positive regulatory zinc finger domain protein 1 (PRDM1), is the master regulator of the terminal B-cell differentiation. In this project, two transcripts of PRDM1, namely PRDM1 α and PRDM1 β , are observed in DLBCL patients, cell lines, and normal tonsils. Based on qPCR results from 24 DLBCL patients, PRDM1 α and PRDM1 β are differentially expressed with more than 2 fold in approximately 20%, but not in normal tonsils. At present it is being experimentally tested, if protein isoforms can be detected by Western blot and correlated to aberrant mRNA expression.

A transcription repressor function of PRDM1 β has been suggested due to its potential to compete with PRDM1 α for DNA binding, thereby blocking for the function of PRDM1 α . These isoforms are generated by use of two distinct promoters. Aberrant promoter usage is documented in various cancers but so far not in B-cell malignancies. Thus, the use and role of alternative promoters and resulting protein isoforms of PRDM1 in DLBCL will be pursued by analysis of cytogenetic, DNA methylation status and protein levels of PRDM1.

A part of the scientific programmes, CHEPRE and NABIIT, is supported by The Danish Agency for Science, Technology, and Innovation.

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11) Determination of Malignancy of Thyroid Gland by means of Elastography and PET/CT measurements

Forfattere:

Jørgen Erik Assentoft, Victor Iyer

Abstract:

Today new imaging tools can investigate Elasticity (stress/strain and Young's Modulus - called Elastic Modulus EM) in tissues by means of Ultrasound (US) due to its real-time and interactive nature.

Malignant tumors are significantly stiffer and more immobile than surrounding healthy tissue. Measurements have shown that solid tumors often are 10 times stiffer than surrounding tissues.

The aim of this study is to combine EM with PET/CT measurement with 18F-FDG in the Thyroid gland to measure Malignancy.

The thyroid gland is well positioned for EM examination. It is easily assessable and can be efficiently compressed against underlying anatomic structures by using a US probe. The PET/CT examination of the Thyroid Gland can demonstrate diffuse, focal, asymmetric or virtually no FDG uptake and these uptake patterns can be seen in physiologic, benign and pathologic processes (Shreve et al, Cook et al, Gordon et al and Lin et al).

The thyroid cancer diagnosis based on the lesion's stiffness are described in an overview articles by Varghese 2009. Therefore the knowledge of the EM of the tissue according to the malignancy could be used in combination with the PET/CT examination to give a better diagnosis.

This study will examine the correlation between PET/CT and EM examination. Can image fusion of US, FDG-PET, CT and the knowledge of EM facilitate the diagnosis of Thyroid malignancy.

Five pilot patients will be used.

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12) Developing New Nursing Methods in Helping to Create Meaningful Life Style Changes for Heart Patients

Forfattere:

Astrid lauberg, cand cur Trine Duedal Nielsen, sygeplejerske Mona Pilgaard, sygeplejerske Lisbeth Ravn, sygeplejerske

Abstract:

Background: In this project several perspectives were addressed in order to determine a better way of supporting lifestyle changes for patients treated for Ischemic Heart Disease. The previous effort did not seem to have the desired effect. In particular information about risk hazards did not seem to help people in changing their lifestyle in the long term.

Purpose: The aim of the project was to develop methods to ensure that the lifestyle conversation was experienced as valuable in terms of having gained inspiration into making good lifestyle choices.

A nursing research project designed as a research in action project was established.

Method: Firstly a hermeneutic-phenomenological study

was designed intended to gain insight in patient outcome from lifestyle conversation. Qualitative analyses of interviews were used. Secondly a program was planned to create awareness of nursing conduct in these situations and thirdly another study investigated the impact of the new nursing methods.

Six patients were interviewed five to six months after discharge. Seven were interviewed after the changes.

Results: The research showed that patients treated for Ischemic Heart Disease after five to six months were having difficulties remembering even having had a conversation with a nurse about lifestyle changes.

It was established that knowledge was lectured on to the patient, the patient did not set the agenda and they were not met as an individual person, all which did not create meaningfulness within the patient.

Developing a written invitation to a conversation is

Implications for practice: Training meaningful reflections show a new direction in lifestyle coaching.

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13) Diagnostik af infektion hos patienter med hoftealloplastik eller -osteosyntese. Et retrospektivt studie af Kamme-prøver 1996-2009

Forfattere:

Christina Horsager Pedersen, Henrik C. Schønheyder

Abstract:

Effektiv behandling af inficerede hoftealloplastikker forudsætter en mikrobiologisk diagnose. Det har været fast procedure siden 1990'erne at tage 5 biopsier (bps) med separate instrumenter i forbindelse med revisioner også uden konkret infektionsmistanke. I et tilgrundliggende metodearbejde definerede Kamme & Lindberg (1981) vækst fra minimum 3 bps som signifikansgrænse for at opnå høj sensitivitet og specificitet. Der foreligger dog kun få artikler, som belyser metodens kvantitative aspekter, og derfor har vi identificeret en kohorte af patienter med 1) hoftealloplastik eller -osteosyntese in situ og 2) et førstegangs prøvesæt (4-6 bps). Patienter med et protraheret infektionsforløb eller kronisk fistel blev ekskluderet. Vores primære datakilde var det mikrobiologiske prøveregister, suppleret med journaloplysninger.

I alt 1374 patienter indgik i studiet med 6875 biopsier. 176 patienter (13%) havde signifikant vækst; en grup-

pe på 33 patienter havde vækst fra 1-2 bps. I gruppen med signifikant vækst var mediantiden fra primær operation til revision 81 dage, og 126 havde alloplastik, 44 osteosyntese og 6 begge dele. I samme gruppe havde 152 (86%) renkultur af enten *S. aureus* (64), koagulase-negative stafylokokker (KNS, 41), enterobakterier (22), anaerobe (6) eller andre bakterier (19). De resterende 24 (14%) havde et polymikrobielt fund domineret af KNS, *S. aureus* og enterobakterier.

Studiekohorten er formentlig den hidtil største, som har gennemgået standardiseret mikrobiologisk diagnostik baseret på Kamme-prøver og et kriterium for signifikant vækst i overensstemmelse med det oprindelige metodearbejde. Infektionsdiagnosen har derfor høj validitet hos de 179 patienter, og de mikrobielle data kan tjene som reference for fremtidige diagnostiske og terapeutiske strategier.

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14) Dynamic Research Profile Visualization Using Cluster Transition

Forfattere:

Jens Peter Andersen

Abstract:

Aalborg Hospital annually assesses research and innovation using a model of five composite indicators of funding, scholarly publishing, mediation, other scientific communication and innovation & technology transfer. Clustering methods can group hospital departments into profiles, visualising distributions of indicators. These profiles can provide research managers with a tool for providing latent information about the research and innovation output of individual departments.

Materials & Methods: Data were collected for a three-year period (2007-2009), covering five indicators. 34 different hospital departments were included in the assessment. Annual profiles were formed as vectors for each department and an agglomerative clustering method was applied to measure the similarity of departments. Similarity was measured with cosine. The vector values were calculated as moving averages of three years. Based on similarities of the initial data (2007) a threshold for forming clusters was decided upon (similarity = 0.8), and the clusters were created according to this threshold. Each cluster was labelled in accordance with the profile (distribution of indicators) of the included departments.

As annual clusters were created independently of previous formations it is expected that some departments will move between clusters or split or merge clusters. Transitions between clusters provide information about which departments shift focus, e.g. by improving publishing activities.

Results: The data shows no merges or splits in clusters, although both cases are close, nearing the 0.8 threshold in 2009. No initial profiles disappear, and no new profiles are added. Several departments move between profiles over time.

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15) Effect of Buprenorphine and Fentanyl in Experimental Induced Superficial, Deep and Hyperalgesic Pain

Forfattere:

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Abstract:

Background and purpose: Chronic pain and hyperalgesia can be difficult to treat with classical opioids acting predominately at the μ -receptor. Buprenorphine and its active metabolite are believed to act through μ -, κ - and δ -receptors and may therefore possess different analgesic and anti-hyperalgesic effects compared to pure μ -receptor agonists e.g. fentanyl. The purpose of this study was therefore to compare the analgesic and anti-hyperalgesic effects of buprenorphine and fentanyl.

Method: In the present study 22 healthy volunteers were randomized to treatment with transdermal buprenorphine (20 μ g/h, 144h), fentanyl (25 μ g/h, 72h) or placebo patches in a double-blind, cross-over experimental pain study. The experimental pain tests (phasic pain, sensitization) involved pressure at the tibial bone, cutaneous electrical and thermal stimulation, intramuscular nerve growth factor, ultraviolet B-light burn injury model and intradermal capsaicin-induced hyperalgesia. Pain testing

was carried out at baseline, 24, 48, 72 and 144 hours after application of the drugs.

Results: Compared to placebo buprenorphine significantly attenuated pressure at the tibial bone ($P=0.007$) as well as pressure pain in the primary hyperalgesic area induced by ultra-violet B-light ($P=0.006$), which was not the case for fentanyl. The two drugs were equipotent and better than placebo against cutaneous thermal pain stimulation ($P=0.0001$), but failed to show significant analgesic effect to cutaneous electrical stimulation, nerve growth factor-induced muscle soreness and to capsaicin-induced hyperalgesia.

Conclusion: In equipotent doses buprenorphine attenuated bone associated pain and primary hyperalgesia more than fentanyl. These tissue and modality differentiated properties may reflect observations that opioids often show variable effect in individual patients.

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16) Effect of Buprenorphine and Fentanyl on Descending Pain Inhibitory Control: A Human Experimental Study

Forfattere:

Lars Arendt-Nielsen, Trine Andresen, Alexander Oksche, Heikki Mansikka, Asbjørn Mohr Drewes

Abstract:

The descending pain inhibitory system is often impaired in chronic pain, and it is important to know how analgesics interact with this system. The aim of the present human experimental pain study was to investigate the effect of opioids on one of the descending pathways, the diffuse noxious inhibitory control system (DNIC).

Twenty-two healthy male volunteers were randomized to treatment with transdermal patches fentanyl ($25\mu\text{g}/\text{h}$), buprenorphine ($20\mu\text{g}/\text{h}$) or placebo in a three way cross-over study. The cold pressor test (conditioning stimulus ($3.0\pm 0.3^\circ\text{C}$ cold water) applied to the right hand) was used to induce DNIC. During cold water stimulation the pain was continuously rated on a visual analogue scale (VAS). The test stimulus (pressure pain tolerance threshold: PPTol) was applied to the contra-lateral arm immediately after the hand was withdrawn from the water and 2 and 5 min later. The DNIC test was performed at baseline, 24, 48, and 72 hours after application of the drugs. Fentanyl significantly attenuated the time to VAS peak

compared to placebo ($P=0.005$), and the same trend was seen for buprenorphine ($P=0.06$) but pain intensity was constant between conditions. The DNIC effect on PPTol was abolished 2 and 5 min after the hand was withdrawn from the water. The DNIC-evoked PPTol increases were significantly enhanced by buprenorphine ($P=0.004$) and fentanyl ($P=0.005$) as compared to placebo. There were no differences between the two drugs.

The two opioids investigated have a significant potentiating effect on descending pain inhibition in human healthy volunteers.

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17) Endotracheal intubation by using the Airtraq on patients with cardiac arrest handled by paramedics

Forfattere:

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Abstract:

Introduction: In the Northern Region of Denmark the paramedics have been qualified for intubating patients with cardiac arrest by using the Airtraq® (an optical laryngoscope). The paramedics went through a 1-day course at CeMS (Centre for Medical Simulation, the department of Anaesthesia, Aalborg, Denmark) with skill training and simulation based teaching with the Airtraq®. They have been examined using the Airtraq® on mannequins and they are able to intubate in less than 30 sec.

The objective of this study is to monitor the Paramedics abilities to intubate patients with cardiac arrest using the Airtraq®.

Methods: A prospective study. The paramedics are only allowed to make attempt of intubation, if two members of the ambulance service are present, to prevent the hands off time during cardiopulmonary rescue. They register the time spend from the Airtraq® passing the tooth row of the patient to secure placement of the endotracheal tube verified by capnography.

Results: The paramedics have up to now (February-June 2010) had 24 patients with cardiac arrest needing a secure airway. In 21 of cases they succeeded in successfully endotracheal intubation by using the airtraq. In 3 cases they failed 2 attempts of intubating and continued bag mask ventilation. All attempts succeeded within a time

limit of 30 sec.

Conclusion: Danish paramedics fulfil the objective of being able to intubate by use of the airtraq, within a time limit of 30 seconds, to prevent the hands off time during cardiopulmonary rescue, as recommended in ERC Guidelines 2005.

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18) Er der øget risiko for stenttrombose ved kombinationsbehandling med clopidogrel og syrepumpehæmmere efter perkutan koronar intervention (PCI)?

Forfattere:

Stud. med. Jacob Juel og overlæge Svend Eggert Jensen
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Abstract:

Baggrund: Patienter, der gennemgår perkutan koronar intervention (PCI) ordineres typisk dobbelt pladehæmmende behandling med clopidogrel og acetylsalicylsyre samt en syrepumpehæmmer efter gældende retningslinjer for at beskytte mod øvre gastrointestinal blødning. Der har gennem længere tid været mistanke om, at samtidig behandling med clopidogrel og en syrepumpehæmmer øger risikoen for stenttrombose hos patienter, som har fået foretaget PCI, fordi både clopidogrel og syrepumpehæmmerene omsættes af samme CYP450 enzym. Metode: Vi har systematisk gennemgået den eksisterende litteratur ved at bruge PubMed-databasen. Studiet påbegyndtes i juni 2009 og varede til marts 2010. Vi brugte søgetermen "clopidogrel + proton pump inhibitor." Der fandtes 126 referencer i marts 2010. Af disse var 110 engelsksprogede. Der fandtes ikke noget Cochranereview. Resultater: Der findes god evidens for at samtidig behandling med clopidogrel og en syrepumpehæmmer hæmmer clopidogrels pladehæmmende effekt in vitro, mens der målt på kliniske endepunkter som død eller AMI ikke synes at være evidens for negativ effekt in vivo. Konklusion: Dobbelt pladehæmmende behandling med clopidogrel og en syrepumpehæmmer nedsætter clopidogrels pladehæmmende effekt in vitro, mens der ikke for indeværende foreligger tilstrækkelig evidens fra randomiserede studier til, at man kan påvise en øget risiko for stenttrombose ved behandling med clopidogrel og syrepumpehæmmere samtidig.

Perspektiv: Et større prospektivt gennemført dobbelt-

blindet randomiseret og placebokontrolleret studie vil endegyldigt kunne af- eller bekræfte mistanken om en negativ effekt af behandling med syrepumpehæmmer på effekten af clopidogrel. Vores studie bidrager til at understrege vigtigheden af at få besvaret spørgsmålet om interaktion mellem clopidogrel og syrepumpehæmmere, idet der alene i Danmark er tusinder, som dagligt modtager dobbelt pladehæmmende behandling.

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19) Er kortvarig brug af gentamicin til bakteriemæmi hos medicinske patienter farlig for nyrene?

Forfattere:

Marianne H Spanggaard, Bo L Hønge, Henrik C Schønheyder, Henrik Nielsen

Abstract:

Ved sepsis og mistanke til bakteriemæmi indledes empirisk antibiotisk behandling før mikrobiologisk årsag er fundet. Ved Aalborg Sygehus anvendes penicillin + gentamicin til medicinske patienter såfremt der ikke er kontraindikationer. Imidlertid er der fra flere sider rejst bekymring for brug af gentamicin, idet nyrepåvirkning er en velbeskrevet bivirkning.

Vi har gennemført en analyse af 315 medicinske patienter > 18 år med påvist bakteriemæmi, hvoraf 165 blev kortvarigt (< 5 dage) behandlet med gentamicin i kombination med anden type antibiotika (eksponerede kohorte) mens 150 patienter blev antibiotisk behandlet uden gentamicin (kontrol kohorte). Patienter med kendt nyrepåvirkning blev ekskluderet. De to kohorter var sammenlignelige angående køn, blodtryk, fokus, mikrobiologisk fund, CRP, og leukocytal. Alder hos eksponerede var lidt højere end hos kontroller (P = 0.05).

Det primære endepunkt var stigning i creatinin > mol/L i forhold til værdi ved indlæggelsen. Dette blev fundet hos 14/165 (7,9%) af eksponerede og hos 13/150 (8,7%) af kontroller; P = 0.813. I løbet af 12 måneders follow-up faldt creatinin værdi til normalt niveau hos 8/12 (66,7%) af eksponerede og 7/9 (77,8%) af kontroller, P=0.66. Overlevelse dag 30, behov for akut dialyse samt ophold på intensiv afsnit var ens i de to kohorter.

Vi konkluderer, at nyrepåvirkning indtræder hos medicinske patienter med bakteriemæmi, men uafhængigt af kortvarig brug af gentamicin såfremt patienten ikke har kendt nyresygdom. Hos patienter med stigning i creatinin er dette oftest reversibelt. På baggrund af disse resultater

er der ikke grundlag for at ændre den anbefalede sepsis behandling ved Aalborg Sygehus.

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20) Etisk udvikling i mødet med sårbarhed og lidelse belyst fra sygeplejestuderendes perspektiver – En Skandinavisk kvalitativ, empirisk undersøgelse

Forfattere:

Udviklingspsygeplejerske Birgith Pedersen M.sc.N., Onkologisk Afdeling, Aalborg Sygehus, Århus Universitetshospital, Danmark Lektor og postdoc. Kerstin Sivonen, M.sc.N., PhD, Åbo Akademi University, Vasa, Finland

Abstract:

Baggrund: I klinisk praksis kan sygeplejestuderende opleve autentisk, omsorgsfuld og respektfuld sygepleje tilpasset patientens situation. Ligeledes kan de opleve magtfuld, fragmenteret og generel sygepleje. Refleksion kan medvirke til at sætte fokus på sygeplejens etiske dimension, men der mangler viden om hvorfra sygeplejestuderende får styrke til at bibeholde og udvikle sin moralske integritet.

Formål: At undersøge hvordan mødet med sårbarhed og lidelse i klinisk praksis kan styrke eller hæmme sygeplejestuderendes omsorgsetiske udvikling

Metode: 24 sygeplejestuderende fra Sverige, Finland og Danmark er interviewet over en 18 måneders periode fra 2007 – 2008. Analyseprocessen er fænomenologisk, hermeneutisk inspireret af Kvaales tre fortolkningskonkter suppleret med Lindseths og Norbergs metode for fortolkning af interviewtekster. Projektet overholder gældende regler for forskning i de tre lande.

Fund: 3 hovedtemaer analyseres frem:

At bevæge sig i sårbarhedens to rum – det sårbare rum med overinvolvering og sympati og det udviklende rum hvor der sker en bevægelse mod et professionelt perspektiv. At bruge sine idealer ”at gøre en forskel og yde omsorg med hjertet” som holdepunkter for sin omsorgsetiske udvikling. Den etiske vækst – risiko for forfald pga. tilpasning til rådende negativ omsorgskultur.

Konklusion: Sygeplejestuderende er i besiddelse af en moralsk sensitivitet, der udfordres, når kulturen i klinisk praksis ikke er i overensstemmelse med deres egne etiske idealer. De forsøger at være autentiske, bevare deres moralske integritet og tage vare på deres moralske idealer, eksempelvis ved at yde omsorg for patienterne bag luk-

kede døre. Imidlertid er der risiko for etisk forfald og for at den studerende udvikler sig til en ”ikke omsorgsfuld sygeplejerske”.

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Forskningsansvarlig på afdelingen: Morten Ladekarl

21) FACS-sorted B-cell subpopulations from normal human secondary lymphoid tissues; five subsets with convergent gene expression profiles and phenotypes

Forfattere:

Kjeldsen MK¹, Perez-Andres M², Johansen P³, Boegsted M¹; Nyegaard M¹, Fogd K¹, Orfao A², Johnsen HE¹ and Dybkaer K¹, ¹) Department for Haematology, Aalborg Hospital, Aalborg, Denmark, ²) Service of Cytometry & Department of Medicine, CICancer-University of Salamanca, Salamanca, Spain; ³) Department of Pathology, Aalborg Hospital, Aalborg, Denmark.

Abstract:

Background: At present, B cell differentiation and development are recognized as very complex. High speed multiparameter flow cytometry (MFC) and cell sorting (FACS) enable fast and sensitive identification and characterization of normal and malignant B-cell hierarchy.

Hypothesis and Aims: We hypothesize that B-cell subpopulations identified by MFC have distinct gene expression profiles reflecting their global functions. The aim is to use MFC, sort identified B-cell subpopulations for gene expression profiling (GEP) for a better understanding of normal function and differentiation.

Methods: From homogenized human tonsil tissue, isolated mononuclear cells are subjected to MFC and FACS-sorted using a multicolor fluorescence single tube (CD3/CD10/CD20/CD27/CD38/CD44/CD45/CXCR4), to identify and isolate distinct B-cell subpopulations for morphological inspection, and both global and single gene expression profiling.

Results: Five B-cell subsets from human tonsil, namely naïve, centroblast, centrocyte, memory, and plasmablast have been identified, and FACS-sorted based on their distinct immunophenotypic features. The cellular identity of the subpopulations was verified at the gene expression level using microarray and qRT-PCR gene expression profiling based on the used discriminative phenotypic markers as well as transcriptions factors like KI-67 and multiple B-cell differentiation markers (BACH2,BCL6,PAX5,IRF4,P

RDM1,XBP1).

Conclusion: With a combination of surface markers expressed antigens and gene expression analysis of B cell subsets a strong methodology is provided to generate improved insights into the B-cell biology and thereby also development of B-cell malignancies.

Indsendt af:

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22) Forekomst af kraniofaryngeom i Danmark i perioden 1985-2004 og diagnostisk validitet af landspatientregisterdata - uddrag fra ph.d.-afhandling.

Forfatter:

Eigil Husted Nielsen

Abstract:

Baggrund: Kraniofaryngeom er en benign men ofte komplikationstung tumor i hypofyse-hypothalamusområdet. Forekomsten af kraniofaryngeom i Danmark er ikke tidligere kortlagt. Kvaliteten af landspatientregisterdata har varieret ved tidligere studier af en række sygdomme, omend sensitiviteten generelt har været høj.

Formål: (1) At undersøge validiteten af landspatientregisterdata i relation til kraniofaryngeomdiagnosen, (2) at beskrive incidensen af kraniofaryngeom i Danmark med særligt fokus på alders-, køns- og periodevariationer samt (3) at estimere incidensen af kraniofaryngeom på verdensplan.

Materiale og metoder: I studiet indgik patienter med nydiagnosticeret kraniofaryngeom i Danmark i perioden 1985-2004 ifølge Landspatientregistret og/eller Cancerregistret. I et nordjysk pilotstudie indgik desuden tilsvarende patienter identificeret via lokale registre. Diagnoserne blev verificeret ved gennemgang af patienternes sygehusjournaler. Sensiviteten af landspatientregisterdata blev vurderet via pilotstudiet, mens validiteten, herunder positiv prædiktiv værdi af individuelle diagnosekoder, vurderedes i det nationale studie. Beregnede incidensrater var baseret på alders-, køns- og kalenderårspecifikke data. Verdensincidensen estimeredes ved et vægtet gennemsnit af resultater fra forskellige dele af verden.

Resultater: Sensiviteten af Landspatientregistret var 95%. Validiteten af det oprindelige registersøgnings-

resultat var lav men kunne forbedres ved at kombinere diagnose- og afdelingskriterier. Bedste individuelle kodes positive prædiktive værdi var 66%. I alt identificeredes 189 nye sikre (162) eller sandsynlige (27) kraniofaryngeompatienter i studieperioden, svarende til en samlet WHO-standardiseret incidensrate på 1,86 (1,60-2,14) x 10⁻⁶ pr. år, med karakteristisk aldersvariation men ingen kønsforskel. Verdensincidensraten af kraniofaryngeom var 1,34 (1,24-1,46) x 10⁻⁶ pr. år.

Konklusion: Sensiviteten af Landspatientregistret i forhold til kraniofaryngeom var høj men den diagnostiske validitet lav til moderat. Incidensen af kraniofaryngeom i Danmark var 1,86 (1,60-2,14) x 10⁻⁶ pr. år.

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23) Fra et individuelt til et fælles luftvejskoncept - Opbygning af en sikkerhedskultur omkring håndtering af uventet vanskelig luftvej – et fælles projekt i en hel region

Forfattere:

Overlæge Per Henrik Lambert, Kvalitetskoordinator Susanne Algren

Abstract:

I Anæstesen, Region Nordjylland udføres ca. 48.000 anæstesier årligt. I 2008 introducerede vi et fælles koncept for systematisk håndtering af uventet vanskelig luftvej. Der er udarbejdet en instruks, et actioncard og en standardiseret bakke med remedier til håndtering af den uventede vanskelige luftvej. 3 måneder efter indførelsen udsendte vi et spørgeskema til samtlige afdelings- og afsnitsledelser omkring udformning, placering, vedligeholdelse og anvendelse af de standardiserede bakker.

Nu 2 år efter indførelsen har vi gentaget spørgeskemaundersøgelsen og arbejder systematisk med kvalitetsforbedring. Pr. maj 2010 har 36 læger og 92 anæstesi-sygeplejersker gennemført et træningsprogrammet i luftvejshåndtering i form af fuldskala simulationstræning på sektorens simulationscenter

Resultater: Spørgeskemaundersøgelsen 2010 viser en markant forbedring i forhold til undersøgelsen fra 2008. 100% af afsnittene har bakkeindhold i orden i forhold til 77% i 2008. 100% af afsnittene har anvendt de nye bakker i forhold til 72% i 2008. 93% af afsnittene kender og

anvender instruksen i forhold til 50% i 2008.

Diskussion: Vi er på vej til at opbygge en evidensbaseret sikkerhedskultur i vores patientforløb. Undervisning og simulationstræning er nødvendig. Der bør opstilles veldefinerede kvalitetsindikatorer, som skal kunne auditeres.

Konklusion: Etablering af en sikkerhedskultur omkring luftvejshåndtering kan ses som en markør for hele sikkerhedskulturen i en organisation (3).

At gå fra individuelle koncepter til fælles koncepter er krævende og ledelsesinvolvering på alle niveauer er nødvendig.

Referencer: 1. Kjærgaard J et al. Kvalitetsudvikling i sundhedsvæsenet. Munksgaard 2008. 2. Henderson JJ, et al. Anaesthesia 2004; 59: 675-694. 3. Rall M, Dieckmann P. Best Practice & RCA. Vol.19.No 4, pp.539-557, 2005.

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24) Gender-difference in the association between BHR and asthma symptoms

Forfattere:

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Abstract:

In epidemiological studies asthma is often defined by self-reported symptoms, eventually in combination with BHR. However, both BHR and report of asthma symptoms may differ between genders.

Objective: To analyse associations between asthma symptoms, BHR, and gender.

Methods: In a Danish cross-sectional study of asthma in subjects aged 20-44 years (ERCHS protocol) 1036 subjects were eligible for analysis of associations between asthma-symptoms and BHR. Asthma symptoms were defined by an 8 items asthma score (Pekkanen, J. et al, Eur. Respir. J. 2005; 26: 28-35). BHR was defined as $\geq 20\%$ drop in FEV1 by Methacoline-challenge.

Results: BHR was present among 164 (29%) females and 88 (19 %) males. More females reported asthma symptoms. OR for BHR increased more in males by increasing number of symptoms and for BHR significant interaction between gender and asthma score was seen, $p=0.004$.

Conclusion: Despite higher prevalence of both asthma symptoms and BHR among females, the association between these clinical outcomes is strongest among men. It

remains unclear whether there are genuine gender-differences in asthma or gender-differences in the perception of asthma symptoms. In either way, the result suggests that gender should be considered in population-based studies of asthma and in clinical practice.

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Forskningsansvarlig på afdelingen: Øyvind Omland

25) Globalisering, omstillingspres og psykisk arbejdsmiljø

Forfattere:

Simon Grandjean Bamberger, Anelia Jensen, Anker Lund Vinding, Kirsten Fonager, Peter Nielsen, Pia Ryom, René Nesgaard Nielsen, Øyvind Omland

Abstract:

Advancements in information and communication technologies, free trade agreements and the opening of new markets have intensified globalization. Companies are pressured to change in order to compete on the world market. As a response they implement organizational change to mediate the pressure. This also influences the psychosocial work environment as well as the employees. The study aims to analyse for the effects of global competition and organizational change on employees' mental health summed up in the following hypotheses:

1. Global competition pressure alters work conditions and might lead to job insecurity and psychosocial distress
2. Different types of organizational change have different impacts on working conditions and mental health
3. High individual resilience will modulate the effect of competition pressure and organizational change on mental health.

To answer the hypotheses a multilevel study with longitudinal enterprise data and cross-sectional employee survey data have been designed. 1540 enterprises enrolled in the 2006 DISKO-survey are the study base. An exposure matrix on competition pressure versus organizational change will be created by latent class analysis. 6000 random employees from the companies will be selected for study. Registry based information about the employees will be obtained with help from Statistics Denmark. The primary effect variable is mental health measured by subjective health symptoms, use of psycho-pharmaceuticals, alcohol problems and sick leave. The study design enables outcome variables to be analysed for associations both to subjective experienced demands and perceived

stress to demands and stress described by employer, and to the enterprise key economical variables.

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26) Haptoglobin phenotype is associated with elevated levels of high sensitivity CRP and Interleukin-6 in patients with stage 3-5 chronic kidney disease

Forfattere:

MD Charlotte Strandhave, MD PhD My Svensson, MD PhD Henrik Krarup, MD DrMedSc Jeppe Hagstrup Christensen

Abstract:

Introduction: Three major phenotypes for the haptoglobin (Hp) gene have been identified: Hp 1-1, Hp 2-2 and Hp 2-1. Due to lower phenotype-dependent antioxidant capacity, Hp 2-2 acts as a weaker innate antioxidant. High sensitivity CRP (hsCRP) and Interleukin-6 (IL-6) are markers of low-grade inflammation and have been implicated as independent predictors of cardiovascular mortality among chronic kidney disease (CKD) patients. Aim: To examine whether Hp phenotyping in CKD patients could identify patients with a pro-inflammatory profile with high levels of hsCRP and IL-6.

Methods: We included patients (n = 64) with stage 3-5 CKD from our outpatient clinic. The Hp phenotype was determined using a high-performance liquid chromatography, HsCRP using ADVIA 1650 analyzer and an immunoturbidimetric assay and Il-6 using Luminex multiplex liquid array.

Results: The CKD patients were divided in two groups according to haptoglobin phenotypes: Hp 1-1 and 2-1 (n=45) and Hp 2-2 (n=19). The median hsCRP was 5.9 mg/L CI 95% (3.4;10.2) among Hp 2-2 patients compared to 2.6 mg/L CI 95% (1.9;3.5) in Hp1-1 and Hp 1-2 patients (p<0.01). The median IL-6 was 5.8 pg/mL CI 95% (4.2;8.1) in the Hp 2-2 patients compared to 4.2 pg/mL CI 95% (3.5;5.2)

Conclusion: Haptoglobin phenotyping in patients with CKD revealed that Hp 2-2 patients had significantly higher levels of hsCRP compared to Hp 1-1 and Hp 2-1 patients. Also, a trend towards higher levels of IL-6 was seen. Thus, this phenotype may identify a group of CKD patients with a pro-inflammatory profile potentially predicting a higher risk of cardiovascular disease and mortality.

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27) HjerteKOST – validering af et let anvendeligt kostskema, der reflekterer indtag af fisk, frugt og grønt

Forfattere:

Anne-Mette Haugaard, Tina Obel, Lone J. Bjerregaard, Ulla Toft, Erik Berg Schmidt

Abstract:

Formål: Kostundersøgelsesmetoder er tidskrævende i klinisk praksis. Derfor har vi udviklet et letanvendeligt kostskema, HjerteKOST, bestående af 19 spørgsmål. Studiets formål er at validere Hjerte-KOST i forhold til et anerkendt kostfrekvensskema, Inter99, som omfatter 198 spørgsmål og derfor ikke er særlig anvendeligt i klinisk praksis.

Metode: I studiet er inkluderet 100 raske og 100 hjertesygde deltagere, som har udfyldt HjerteKOST og Inter99. Hos 50 af deltagerne er desuden målt serums indhold af marine n-3 fedtsyrer og β -caroten med henblik på også at validere HjerteKOST på baggrund af to biomarkører. Resultater: I analysen er anvendt en række statistiske metoder, som alle viser en god eller i flere tilfælde stærk sammenhæng mellem de kostprofiler, der tegnes i Inter99 og HjerteKOST, og tilsvarende mellem biomarkørerne og svarene i HjerteKOST. Der var en stærk korrelation på 0.66 (95% CI: (0.57;0.73), p<0.0001) mellem fiskeindtaget i HjerteKOST og Inter99. Sammenlignes fiskeindtag i HjerteKOST med marine n-3 fedtsyrer målt i serum, er korrelationen 0.49 (95% CI: (0.25;0.68), p=0.0003).

Sammenligning af de to skemaer viser for frugtindtag en korrelation på 0.68 (95% CI: (0.60;0.75), p<0.0001) og for indtag af grønt en korrelation på 0.46 (95% CI: (0.34;0.56), p<0.0001). Biomarkøren β -caroten er målt for at validere sammenhængen med indtag af frugt og grønt i HjerteKOST. Her var korrelationen 0.51 (95% CI: (0.27;0.69), p=0.0002).

Perspektivering: HjerteKOST er lettilgængeligt, hurtigt at udfylde og giver et godt billede af, om den enkelte patient spiser hjertevenlig kost. Det er intentionen, at skemaet skal udbredes på landsplan i Danmark.

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28) Hvordan kan information og vejledning øge patientens muligheder for at mestre hverdagslivet med bivirkninger forårsaget af behandling med kemo og stråler?

Forfattere:

Udviklingssygeplejerske Birgith Pedersen SD-ledelse, Cand.cur. Onkologisk Afdeling sygeplejerske Dorte Pallesen Koktved, afsnit D2, Onkologisk Afdeling Lene Lyngø Nielsen afsnit D1 Onkologisk Afdeling. Alle Aalborg Sygehus, Århus Universitetshospital.

Abstract:

Baggrund: Patienter, der får strålebehandling eller kemoterapi, oplever et utal af akutte og kroniske bivirkninger. Litteraturen viser, at manglende information og vejledning om forventede bivirkninger blandt andet skaber angst og utryghed. Desuden viser den, at informationen og vejledningen skal variere over tid, skabe overblik samt give handlemuligheder, hvis den skal støtte patienterne i at håndtere deres bivirkninger og den betydning bivirkningerne har i hverdagen. Udviklingen i kræftbehandlingen og de samfundsmæssige krav om effektivitet medfører, at tiden med den enkelte patient bliver kortere. Dette øger behovet for at individualisere støtte, information og vejledning, så patienten bliver i stand til både at håndtere sin sygdomssituation og de behandlingsrelaterede bivirkninger i hverdagen.

Formål: At forbedre sygeplejen indenfor sygeplejens selvstændige område. Fokus er at undersøge hvordan information og vejledning støtter patienternes mestring af hverdagslivet i forbindelse med bivirkninger af kræftbehandling.

Materiale og metode: Semistrukturerede interviews med 9 patienter, der er strategisk udvalgt. Analyse og fortolkningsprocessen er inspireret af fænomenolog og hermeneutik. Projektet overholder gældende etiske retningslinjer og er anmeldt til datatilsynet.

Fund: 3 hovedtemaer:

“bivirkningernes påvirkning af det normale liv” belyst ved undertemaerne: opretholdelse af det normale liv, når bivirkningerne tager magten og kampen for at forblive sig selv.

”at blive set og være en af mange som uerfaren kræftpatient” belyst ved undertemaerne: det individuelle møde og tilpasningen til systemet, fortroligheden der tabes når systemet kører, følelse af ansvar og skyld.

”at blive taget ved hånden” belyst ved undertemaerne: udgåelse af informationens mange faldgruber, at komme bag facaden, information og vejledning – en vifte af muligheder.

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29) Hvordan kan patientens sundheds-it-system forbedre kvaliteten i kontakten mellem mandlige cancerpatienter og sundhedsprofessionelle?

Forfattere:

Bjørnes C., Laursen B.S., Delmar C., Nøhr C.

Abstract:

Baggrund: Udviklingen af sundheds-it har primært fokus på at imødekomme sundhedsvæsenets behov, dvs. sundheds-it-systemer, der bidrager til sikker og effektiv behandling. Patienterne tilbydes i stigende grad adgang til disse sundheds-it-systemer. Patienternes adgang er begrænset til at være passiv, da det alene er muligt at læse, hvad sundhedsprofessionelle dokumenterer. Anvendelsen af medicinsk fagsprog er samtidig nødvendig for fortsat at udvikle de medicinske videnskaber. Patienter tilbydes dermed adgang til en (medicinsk) ”historie” om dem selv, som de har vanskeligt ved at forstå og ofte har svært ved at genkende. Denne fremmedgørelse kan bidrage til utryghed og oplevelse af manglende kontrol.

Formål: Ved en forskningsforankret tilgang at udvikle, implementere og evaluere et eksempel på patientens sundheds-it-system.

Metode: Klinisk interventionsstudie: Ved en innovativ, systematiske tilgang udvikles og implementeres informations- og kommunikationsredskabet: Online patientbog. Opbygning, komponenter og indhold i Online patientbog er funderet på viden fra patientbrugere og konstrueret ved inddragelse af klinisk ekspert viden. Viden der forsøger at besvare spørgsmålet: Hvad kan bidrage til patientens tryghed.

Perspektivering: Patientudsagn peger på at Online patientbog kan fungere som patientens sundheds-it-system, idet patienten:

- Gives adgang til generel og individuel information målrettet patienterne
- Kan foretage noter og deltage i dialog
- Har mulighed for at ”tænde og slukke” kontakten til sundhedsprofessionelle, dvs. gives friheden til at sende spørgsmål til sundhedsprofessionelle, når han har behov og tid

Med Online patientbog tilbydes patienten sin egen elektroniske ”forløbskoordinator”, der giver patienten mulighed for at være aktiv og involveret, og dermed overblik og

kontrol over eget forløb.

Denne videns- og forskningsbaserede model tegner patientens sundheds-it-system, som kan videreudvikles, transformeres og målrettes andre patientgrupper.

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30) Image Guided Respiratory Gated Radiotherapy for lung cancer patients: Pre clinical experience on Göttingen minipigs

Forfattere:

Martin Skovmos Nielsen, Jane Nielsen, Jesper Carl

Abstract:

Radiotherapy for lung cancer is complicated by the respiratory motion of the lung during both treatment preparation and the treatment delivery. Lung motion results in image artefact on diagnostic image modalities (CT) which makes tumour definitions unclear. To compensate for lung motion during treatment, additional margin is needed for the treatment volume. These margins result in larger volume for treatment and consequently an increase in normal tissue complication. With treatment preparation on retrospective 4D CT (time dependence 3D CT), radiotherapy can be delivered in a predefined phase relative to the respiratory cycle. Even on time dependent 4D CT motion distortions happens. This is especially pronounced in the mid ventilated phases between deep inhale and exhale. Radiotherapy in these respiratory phases may be associated with large uncertainties in volume definition and consequently detection during treatment. Repeated 4D CT shows deviation of the respiratory motion pattern between internal and external motions up to 8 mm. This despite lung volumes and respirations cycles are kept constant with respirator during the 4D CT scans.

This implies care must be taken for external gated treatment. Evaluation of motion errors for margin definitions can not be trusted based on a single 4D CT. As well as gated radiotherapy with no image guidance can lead to treatment off position.

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31) Implementation of an Interdisciplinary Nutrition Strategy for Patients With Head and Neck Cancer

Forfattere:

Lis Kristensen, Radiation technologist, RN Trine Duus, Radiation technologist, RN Radiotherapy Department, Dept. of Oncology, Aalborg Hospital, Denmark

Abstract:

Background: Patients receiving radiotherapy for head and neck cancer are prone to malnutrition and weight loss. Preservation of nutritional status is crucial to avoid complications and infections, prolonged hospitalization and declined quality of life. Inadequate nutritional strategy resulted in heavy weight losses for head and neck cancer patients.

Purpose: To implement an interdisciplinary nutrition strategy within the framework of the hospital's quality assurance programme.

Method: The project was based on the quality assurance programme used at Aalborg Hospital. Flow diagrams were elaborated, patients were interviewed and a search for literature was made to determine criteria for the nutritional effort.

Problems addressed were:

- No coordinated nutritional effort for departments involved
- No clear ownership/responsibility of nutritional intervention
- Absence of proper patient information material

Results:

- Use of a Worksheet for risk assessment/scoring/interventional measures that follows the patient during patient course
- Involvement of all departments referring patients to radiotherapy
- Systematic use of dietetic consultations
- Preparation of a patient information leaflet
- Conduct of annually audits to ensure evaluation and revision of quality criteria and update of the patient information material
- Implementation of annually audits that assure evaluation and revision of quality criteria and assurance of up to date of the patient information material.

Conclusion: We have succeeded in implementing a nutrition strategy which is complied with by all staff, and which clearly defines responsibility/accountability from time of diagnosis until 5 months after end of radiotherapy. The strategy was initiated 2003 and is still working well.

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32) Improvement of SPECT/CT resolution by supersampling using a point source model

Forfattere:

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Abstract:

The practical resolution of biomedical images like PET, CT and SPECT is typically judged by the use of water containing phantoms like "NEMA IEC/2001". This is useful because they also reflect artifacts that may occur during patient investigation. In order to avoid boundary artifacts we conducted a series of measurements with a point source setup.

Six ampoules, each 0.5 ml, and each containing 80 MBq Tc99, were arranged with few mm distance in a well defined pattern. Three recordings were performed with a well defined start off set in the x, y, and z directions. The three data sets were combined according to the supersampling protocol into one set of better resolved images. This setup emphasizes that supersampling is useful for noise reduction and resolution improvement of SPECT images, and shows that point sources may be a useful supplement to standard phantom evaluation procedures.

Indsendt af:

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33) Increasing incidence of anal squamous cell carcinoma in Denmark, 1978-2008

Forfattere:

Kåre Gotschalck Sunesen, Kirurgisk Gastroenterologisk Afdeling Ole Thorlacius-Ussing, Kirurgisk Gastroenterologisk Afdeling Mette Nørgaard, Klinisk Epidemiologisk Afdeling

Abstract:

Objective: To examine changes in the incidence of anal squamous cell carcinoma (SCC) in Denmark between 1978 and 2008.

Methods: We used the Danish Cancer Registry to conduct a nation-wide cohort study in Denmark, 1978-2008. We computed sex-specific, age-standardized, 5-year moving average incidence rates (IR) of anal SCC by direct standardization to the world standard population. Crude IRs were computed stratified by sex, age-group (25-49, 50-74, 75+ years), and period (1978-1988, 1989-1998, 1999-2008). Poisson regression was used to compute incidence rate ratios (IRRs) to compare the sex- and age-specific crude IRs between periods. Outcome measures were computed with their 95% confidence intervals (CI). Results: We identified 1,886 cases of anal SCC in the Danish Cancer Registry during 1978-2008. Among men the world standardized IR of anal SCC per 100,000 person-years increased from 0.33 (95% CI: 0.24-0.45) in 1978-1982 to 0.71 (95% CI: 0.58-0.87) in 2004-2008 and among women from 0.61 (95% CI: 0.48-0.76) to 1.36 (95% CI: 1.18-1.57). The IR of anal SCC increased with time in all age groups, but the increase was relative higher among those in the youngest age group (25-49 years) with IRRs of 2.7 (95% CI: 1.6-4.5) among men and 3.7 (95% CI: 2.5-5.4) among women in 1999-2008 compared to 1978-1988.

Conclusion: The incidence of anal SCC in Denmark increased more than two-fold among men and women during the last three decades. Among young women the increase was nearly four-fold.

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34) International travel is a significant risk factor for acquiring zoonotic *Salmonella* bacteraemia. A Danish 10-year population-based cohort study

Forfattere:

K. Koch¹, B. Kristensen², H.M. Holt³, S. Ethelberg⁴, K. Mølbak⁴, H.C. Schönheyder¹ ¹) Department of Clinical Microbiology, Aalborg Hospital, Aarhus University Hospital, Aalborg, Denmark ²) Department of Clinical Microbiology, Skejby Hospital, Aarhus University Hospital, Aarhus, Denmark ³) Department of Clinical Microbiology, Odense University Hospital, Odense, Denmark ⁴) Department of Epidemiology, Statens Serum Institut, Copenhagen, Denmark

Abstract:

Objectives: To determine the incidence of zoonotic *Salmonella* bacteraemias associated with international travel and assess whether travel destination, sex or age are associated with bacteraemia among patients diagnosed with *Salmonella* infections.

Methods: We conducted a 10-year population-based cohort study in three Danish regions 1999-2008 (population 1.6 million). Patients with bacteraemia were identified in registries in local departments of clinical microbiology. The patients' travel history was obtained by chart review. Patients with gastroenteritis and their travel history were identified in the national registry of enteric bacterial pathogens, Statens Serum Institut. We computed incidence rates and estimated the relative risk of bacteraemia compared to gastroenteritis by logistic regression. For each geographic region we calculated the odds ratio (OR) adjusted for age and gender.

Results: We identified a total of 311 incident cases of zoonotic *Salmonella* bacteraemia. Seventy six (24.4%) patients had a history of international travel. The overall incidence rate of travel-related bacteraemia was 0.5/100.000 person-years; the incidence rate was highest in the age-group 15-24 years (0.8/100.000 person-years). We found the highest risk of bacteraemia for travelling to Sub-Saharan Africa (OR 18.4[95% CI:6.9-49.5]), the Middle East (OR 10.6[2.1-53.2]) and South East Asia (OR 4.0[2.2-7.5]), and in the age-group ≥ 65 (OR 5.3[3.7-7.6]).

Conclusion: The relative risk of presenting with zoonotic *Salmonella* bacteraemia was significantly associated with age over 65 years and travel to Sub-Saharan Africa, the Middle East and South East Asia. This knowledge may be useful in the clinical evaluation of travellers presenting with fever and can form a basis for pre-travel counselling.

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35) Inverse Relationship between the Complexity of Midfoot Kinematics and Muscle Activation in Patients with Medial Tibial Stress Syndrome

Forfattere:

Rathleff, M.S¹; Samani, A²; Olesen, C.G^{2,3}; Kersting, U.G²; Madeleine, P². ¹) Orthopedic Division, North Denmark Region, Aalborg Hospital, Aarhus University Hospital, Denmark ²) Center for Sensory-Motor Interaction (SMI), Dept. of Health Science and Technology, Aalborg University, Denmark, ³) Department of Mechanical and Manufacturing Engineering, Aalborg University, Denmark

Abstract:

Background: Medial tibial stress syndrome is a common overuse injury characterized by pain located on the medial side of the lower leg during e.g. gait. The purpose of this study was to apply linear and nonlinear methods to compare structure of variability of midfoot kinematics and surface electromyographic signals between patients with medial tibial stress syndrome and healthy controls during gait.

Methods: Fourteen patients diagnosed medial tibial stress syndrome and 11 healthy controls were included from an orthopaedic clinic. Surface electromyography from tibialis anterior and soleus muscles as well as midfoot kinematics were recorded during 20 consecutive gait cycles. Permuted sample entropy (PeSaEn) and permutation entropy (PE) were used as a measure of complexity from surface electromyographic signals and kinematics. Two-way ANOVA was applied for PeSaEn and PE values introducing time and subject groups (healthy, MTSS) as factors in analysis of EMG data. $p < 0.05$ was considered significant.

Results: The surface electromyographic signals in patients with medial tibial stress syndrome were characterized by higher structural complexity compared with healthy controls ($p < 0.001$) while it was the opposite for the midfoot kinematics ($p = 0.01$).

Interpretation: Assessing the complexity of midfoot kinematics and surface electromyographic activation pattern enabled a precise characterization of gait in patients with medial tibial stress syndrome. The reported inverse relationship in foot kinematics and surface electromyographic complexity argues for independent mechanisms governing gait variability. Future studies could assess changes in kinematics and surface electromyographic complexity during rehabilitation programs.

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36) Is a Computer Based Measurement Method Superior to a Traditional Subjective Method to Reduce Both Pressure and a Estimated Risk Factor of Tissue Damage in the Sitting Position?

Forfattere:

Jane Andreasen Pt,D.pt,MLP, Lone Nguyen OT, Susanne Kaasgaard Nielsen OT, Christian Gammelgaard Olesen Ph.D stud., John Rasmussen, professor og Peter Larsen Pt,MR.

Abstract:

Introduction: Pressure ulcers (PU) are common occurrences in hospitalized patients , involving 7,5 – 36 % of the hospitalized population. PU are a cause of pain, and reduced daily activity for the patient and increased expense.

Two hypotheses about the development of ulcers are present; one is the correlation between pressure and ulcers, the other is the sealing theory suggesting that differences between pressure areas are the risk factor for tissue damage.

A part of the intervention procedure in occupational therapy is to support the patient in the sitting position with a special inflatable air cushion. Subjective assessment is standard procedure to measure the adequate pressure in the air cushion.

No reliability studies has been published and the objective of this study was to test intra- and inter tester reliability and evaluate if computer based measurement method is superior to subjective method to reduce pressure/ risk factor of tissue damage in the sitting position.

Method: The study population included 20 healthy subjects. Inclusion criteria were able minded subjects between the ages of 18 and 99.

Primary Outcome measures were average pressure and peak pressure over 90 mmHg in the seating area using the XSENSOR Pressure Mapping System™ (Technology Corporation).

Secondary outcome is an estimated risk factor indicating risk for tissue damage.

Results: Baseline measurements have been taken and statistic analysis are not completed yet. Results will be presented at the venue.

The perspective: It is important to evaluate methods of

pressure measurements, thereby making it possible to implement the best possible method in daily practice.

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37) Kan “The Cumulated Ambulation Score“ anvendes til vurdering af basismobilitet i forhold til lungekirurgiske patienter?

Forfattere:

Barbara Cristina Brocki, Jane Andreasen

Abstract:

Baggrund: The Cumulated Ambulation Score (CAS) er et valideret måleredskab til vurdering af basismobilitet og udvikling af basismobilitet ved patienter med hoftenære frakturer, og kan desuden bidrage til at forudsige resultatet af den postoperative rehabilitering. Anvendelse af CAS til at vurdere basismobilitet og udviklingen af basismobilitet, samt sammenhæng mellem basismobilitet og udskrivningstidspunkt efter elektiv lungekirurgi er ikke tidligere undersøgt.

Formålet er, at vurdere om CAS kan anvendes til at vurdere udvikling i basismobilitet og identificere sammenhæng mellem basismobilitetsniveau og udskrivningstidspunkt ved lungekirurgiske patienter.

Metode: Alle patienter opereret på Hjerte- og Lungekirurgisk afdeling på Aalborg Sygehus, som gennemgår torakotomi eller minitorakotomi ved åben kirurgi eller videoassisteret torakotomi i en to måneders periode. Fysioterapeuten vurderer basismobilitet inden operation og i de første tre postoperative dage. Patienter som scorer 6 (klarer funktionen selvstændigt) inden for de første tre dage, eller som opnår præoperativ score, afsluttes. Data bearbejdes i SPSS version 17.0. Data analyseres ud fra: det totale CAS score og antal indlæggelsesdage; operationstype (torakoskopisk vs. åbent operation) og mobilitetsgrad; operationstype og total indlæggelsesdage.

Resultater: 23 patienter blev opereret i perioden. Der ses ingen sammenhæng mellem lav CAS score og længere indlæggelsestid; 43 % af patienter scorer CAS max. på 1. postoperativ dag og der ses en ceiling effekt allerede på dag 2; 50 % af patienterne efter thorakoskopi udskrives indenfor 5 dage; for thorakotomi indenfor 10 dage. Undersøgelsen havde for lav styrke til valide statistiske beregninger.

Konklusion: CAS synes ikke anvendelig til at vurdere sammenhæng mellem basis mobilitetsniveau og øvrige variable for elektive lungekirurgiske patienter.

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38) Klæder skaber folk

Forfattere:

Tina Seidelin Rasmussen, BA, Karkirurgisk afdeling V, sygeplejerske Anita Tracey, SD, Hjerte-Lungekirurgisk afdeling T, udviklingssygeplejerske Charlotte Brun Thorup, Cand. cur., Erik Elgaard Sørensen (postdoc, cand. cur., ph.d.) Forskningsenhed for Klinisk Sygepleje, Aalborg Sygehus, Århus Universitetshospital.

Abstract:

Baggrund: Under indlæggelse tilbydes patienter patienttøj. Patienttøj er designet som nattøj til brug ved sengeleje. Det undrer os at patienter i høj grad vælger at iklæde sig patienttøj og ofte optræder lettere afklædte under indlæggelsen.

Den sparsomme litteratur på emnet viser, at patienter oplever det at være iført patienttøj som at være nøgen, anonym og med camoufleret personlighed. At være iført patienttøj kan betyde nedgang i aktivitet med øget immobilisation og de deraf følgende risici. Tøj er "kulturel hud" og ved at være iført patienttøj viser patienter at de tilhører patientkulturen, dvs. de hører til på hospitalet blandt de andre patienter.

Få kilder belyser patienters oplevelse af at være iført patienttøj under indlæggelsen og kun enkelte er af videnskabelig karakter.

Formål: At undersøge hvordan patienter indlagt på en kirurgisk afdeling på et dansk hospital, oplever at være iført patienttøj?

Metode: Deltagende feltobservation af 20 patienter fordelt på to kirurgiske sengeafdelinger, med efterfølgende semistruktureret interview af 11 udvalgte patienter med iøjnefaldende på-klædning. Undersøgelsen er gennemført i 2009 mens analyse og fortolkning er foregået i 2010.

Resultat: Præliminære fund: undersøgelsen viser at patienttøj har betydning for oplevelsen af at høre til på hospitalet, dvs. at være på "patientholdet". Derudover påvirkes patienters fysiske aktivitet således at patienter iført patienttøj opholder sig tættere ved seng og sengestue end patienter iført eget tøj. Desuden viser undersøgelsen at sygdom og indlæggelse skaber en så anderledes oplevelse for patienterne, at vanlig adfærd ændres, de befinder sig i "et tredje rum", som påvirkes af og påvirker tøjadfærden.

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39) Konsekvensen af myokardieskintigrافي (SPECT) udført på Aalborg Sygehus 2008/2009

Forfattere:

Pia Hedegaard Johnsen¹, Olga Tcacenco², René Pflieger², Svend Eggert Jensen¹, ¹) Kardiologisk Afdeling ²) Nuklearmedicinsk Afdeling, Aalborg Sygehus – Århus Universitetshospital

Abstract:

Baggrund: Myokardieskintigrافي (SPECT) med henblik på påvisning af perfusionsdefekter benyttes ofte før henvisning til koronararteriografi (KAG) ved mistanke om iskæmisk hjertesygdom (IHS).

Formål: At beskrive den moderne patientpopulation henvist til SPECT fra en invasiv kardiologisk afdeling, samt at belyse den kliniske konsekvens af den udførte SPECT.

Metode: Studiet er retrospektivt og følgende variabler blev registeret: Alder, køn, kendt IHS, familiær disposition til IHS, rygestatus, diabetes mellitus, hyperkolesterolemia og hypertensio arterialis. Desuden blev resultatet af SPECT og konsekvensen af denne for patienternes videre forløb registeret.

Materialer: 330 patienter (161 kvinder og 169 mænd) henvist fra kardiologisk afdeling, Aalborg Sygehus, Århus Universitetshospital i perioden 1. januar 2008 til 31. december 2009.

Resultat: Myokardieskintigrافي var normal hos 175 patienter (53%), heraf blev 164 patienter (94%) afsluttet med ingen eller vanlig medicin. I alt 94 patienter havde reversible perfusionsdefekter, hvoraf 26 patienter (28%) blev afsluttet med ingen eller vanlig medicin og 47 patienter blev henvist til KAG og i alt 37 patienter blev revaskulariseret ved ballonbehandling (PCI) eller bypass-operation (CABG). 46 patienter havde udelukkende irreversible perfusionsdefekter, heraf blev 32 patienter (69%) afsluttet med ingen eller vanlige medicinske behandling. Af patienterne med normal myokardieskintigrافي var 66% kvinder. Af patienterne med reversible og irreversible perfusionsdefekter var 75% i forvejen kendt med IHS.

Konklusion: Ved anvendelse af myokardieskintigrافي i en selekteret population henvist fra en invasiv kardiologisk afdeling kan >50% af patienterne umiddelbart afsluttes og derved undgå KAG.

Perspektiv: Det kan overvejes, om en øget anvendelse af myokardieskintigrافي før stillingtagen til KAG er cost-effektivt.

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40) Kønsspecifikt fostertab – epidemiologiske aspekter og immunologiske årsager

Forfatter:

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Abstract:

Hos kvinder med mindst 3 konsekutive spontanaborter efter en fødsel (sekundær abortus habitualis = SAH) findes en overhyppighed af førstefødte drenge (dreng:pige ratio = 1,49, $p = 0,0001$) før, men en overhyppighed af pigefødsler (kønssratio = 0,76, $p = 0,02$) efter rækken af aborter.

Patienter med en førstefødt dreng har endvidere en reduceret chance for at føde igen efter rækken af aborter, hvis de bærer HLA klasse II vævstyper, der disponerer til immunologiske afstødningssreaktioner overfor hankønsspecifikke (HY) antigener, som udtrykkes på drengefostre.

Antistoffer med specificitet mod rekombinant HY proteiner påvist hos 49% af kvinder med SAH med en førstefødt dreng, men kun hos 19% af kontrolkvinder ($p = 0,004$). Hos 33 patienter med abortus habitualis, som var positive for mindst et anti-HY antistof fødtes 88% piger efter abortrækken mod 58% piger hos 44 patienter uden HY antistoffer ($p < 0,05$).

Patienter med SAH, der var positive for HLA klasse II vævstyper, som disponerer til anti-HY immunitet, og til lige havde en insertionspolymorfi i HLA-G genen, der er associeret til lav HLA-G ekspresion på trofoblastvæv, fødte børn med signifikant ($p < 0,001$) lavere fødselsvægt og højere perinatal dødelighed end de, som ikke bar disse polymorfier. Denne association var betydeligt mere udtalt hos SAH patienter med en førstefødt dreng.

Vi har således påvist antistoffer og polymorfier i gener med immunologisk funktion, som disponerer til spontanabort og perinatale komplikationer hos patienter med SAH. Det er nu vores plan at undersøge, om de samme biomarkører også er associeret til komplikationer i graviditeter med drengefostre i baggrundsbefolkningen.

Indsendt af:

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41) Mapping multiple myeloma research using author order and co-occurrence

Forfattere:

Jens Peter Andersen, Conni Skrubbeltrang, Hans E. Johnsen

Abstract:

Bibliometric maps of co-author and co-citation networks are commonly employed for several investigate purposes, i.e. the mapping of research fronts or groups in a specific topic. This study investigates if the addition of author orders provides additional information on research networks. This is carried out for multiple myeloma research, a growing research area with recently established formal networks.

Materials & methods: PubMed MEDLINE was used to retrieve metadata for 6,137 publications, all indexed with the MeSH term "Multiple Myeloma" and published during 2004-2009 inclusive. 19,387 author names were extracted from the records. For each author we counted the records they appeared in and whether they were first or last author. In the health sciences, it is common to order the authors according to their contribution (descending order), however, the last author often plays a supervisory or senior role. If this assumption is true, there should be a correlation between the last-author ratio and those researchers believed to be key researchers in the multiple myeloma field.

Results: A bibliometric map was created using VosViewer. Author-frequencies were used as indication of size and author co-occurrences were used for similarity. Each author on the map was coloured according to the ratio of first, last and other authorships. The map displays clusters of authors, representing research groups, and differently coloured authors illustrating primary, secondary and senior researchers alike. Some name disambiguation needs to be employed for clearer results.

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42) Meningsfuld forandring med metoden Guidet Egen-Beslutning - et randomiseret kontrolleret studie for patienter med diagnosen skizofreni

Forfattere:

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Abstract:

Genindlæggelser, ophør med behandling og en tendens til at udeblive fra aftaler med sundhedsprofessionelle i psykiatrien - er almindeligt blandt patienter med en skizofreni diagnose, og er ofte forbundet med manglende indsigt i sygdommen. Forbedring af indsigt har været forsøgt gennem psykoedukation og standard behandling uden betydelige forandringer. I en kvalitativ evaluering har metoden Guidet Egen-Beslutning (GEB), tilpasset til patienter med skizofreni, vist en positiv indflydelse på patienternes indsigt.

Formålet med denne undersøgelse, et randomiseret kontrolleret studie, er at evaluere effekten af metoden GEB til patienter med en skizofreni diagnose sammenlignet med standard behandling og sygepleje. Følgende hypoteser testes: Metoden GEB vil forbedre: Kognitiv og klinisk indsigt, selvværd, psykopatologi, social funktion og forskellige domæner af recovery.

I undersøgelsen inkluderes 100 deltagere fra psyko-seteams i Region Nord, alle diagnosticeret med en ICD-10 skizofreni. Deltagerne udfylder fire selv-vurderingsskemaer i relation til indsigt, recovery og selvværd og projektleder indsamler demografiske data, selvrapporterede oplysninger om misbrug og medicin og udfører et psykopatologisk interview samt en vurdering af deltagerens sociale funktion ved baseline og efter 3, 6 og 12 måneder. Alle deltagere randomiseres efter baseline målinger til kontrolgruppe eller interventionsgruppe. Distriktsygeplejerskerne står for interventionen med metoden GEB.

Viser det sig, at GEB er effektiv som metode i den psykiatriske sygepleje, er der grundlag for videre implementering af metoden.

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43) Mobilisation of patients with epistaxis

Forfattere:

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Abstract:

Objective: The project aimed to study whether patients admitted to hospital for treatment of epistaxis can be mobilised in lieu of the conventional regime of bed rest without increasing risks of new bleeding episodes.

Background: A Danish survey of nursing regimes for epistaxis patients has shown that patients were prescribed bed rest in 11 out of 16 hospital departments. In the literature there is no scientific documentation for the need of bed rest demonstrating any reduced risks of new bleeding episodes. These patients are generally elderly and sustain an increased risk of further complications related to bed rest itself.

Design: The study was a prospective, randomized 1:1 parallel group trial with one hundred participants admitted to our department for treatment of epistaxis. Participants were randomly assigned to mobilisation or bed rest.

Results: In the study group (mobilisation) 21 participants experienced new bleeding episodes against 29 maintaining haemostasis. In the control group (immobilisation) 24 participants experienced new bleeding episodes against 26. The odds ratio for bleeding when mobilised was 0.784 with a confidence interval of [0.356; 1.728]. Thus, there was no statistically significant correlation between mobilisation and the risk of new bleeding episodes.

Conclusion: There was no statistical evidence to support the practice of bed rest to reduce the risk renewed bleeding episodes in patients with epistaxis. This suggested that these patients can be mobilised.

Mobilisation during hospitalisation can maintain patients' levels of functionality, which will prevent both complications of bed rest and loss of self esteem.

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Morphine Induced Changes in the Brain's Pain Matrix

44) PET/CT in Diagnostic Workup of Pancreatic and Biliary Tract Cancer – a retrospective study

Forfattere:

Rikke-Line Jacobsen, Anders Christian Larsen, Mogens Sall, Rune Vincents Fisker, Victor Vishwanath Iyer, Magdalene Kubik, Ole Thorlacius-Ussing

Abstract:

Objective: More studies demonstrate that Positron Emission Tomography/Computed Tomography (PET/CT) is useful in diagnosing gastrointestinal cancer. PET/CT is optional to use in standard diagnostic workup of pancreatic or biliary tract cancer and it remains to be demonstrated that PET/CT is indicated in the primary diagnosis of these cancers.

The present study evaluated the additional information from PET/CT by comparing with the CT component of PET/CT.

Methods: From January 2008 to February 2010 123 patients admitted to the Department of Surgical Gastroenterology with a tentative diagnosis of pancreatic or biliary tract cancer underwent integrated thoracic-abdominal PET-CT. Scans were interpreted by an experienced nuclear medicine physician and a radiologist.

Results: Nine patients had inconclusive scans and were excluded. In 114 patients 63 got a definitive diagnosis of pancreatic or biliary tract cancer made by biopsy, resection or 6 months of clinical follow up. PET/CT demonstrated a malignant tumor in 55 of the 63 patients (87%), whereas the CT scan demonstrated a malignant tumor in 51 of the 63 patients (81%). Furthermore PET/CT incorrectly demonstrated a malignant tumor in 11 patients and CT in 9 patients. Sensitivity of PET/CT was 87% and specificity 78% with a positive predictive value (PPV) of 83% and a negative predictive value (NPV) of 83%. Sensitivity of CT was 81% and specificity 82%. PPV of CT was 85% and NPV 78%

Conclusion: PET/CT only has a small positive contribution in demonstrating primary malignant tumor of the pancreas or biliary tract compared to CT alone. It remains unknown if PET/CT is better in staging of these cancers.

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45) Morphine Induced Changes in the Brain's Pain Matrix

Forfattere:

Dina Lelic, Anne Estrup Olesen, Christina Brock, Camilla Staahl, & Asbjørn Mohr Drewes

Abstract:

Introduction: Morphine is the gold standard for treating moderate to severe pain and it is well known that it exerts most of its analgesic effects in the brain. However, specific details on its analgesic effects in the brain are not well known. Therefore, the aims of the present study were to investigate brain generators of electroencephalogram (EEG) evoked potentials following a pain stimulus in oesophagus after administration of morphine.

Methods: In this placebo-controlled cross-over study, the effects of orally administered morphine and placebo on oesophageal pain elicited by electrical stimulation were investigated in 12 healthy volunteers. Using EEG inverse modelling in combination with a new method "multichannel matching pursuit and clustering", we investigated brain generators and their time-frequency properties following a pain stimulus in oesophagus, before and after administration of placebo/morphine.

Results: Brain sources in EEG delta frequency band (0.5-4 Hz) were stable in the placebo condition, whereas morphine treatment resulted in a shift of the brain sources towards frontal cortex 100-300 milliseconds after stimulus.

Conclusions: This method can be used to increase basic understanding of the brain's pain matrix and eventually identify powerful biomarkers of analgesia in experimental pain models.

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46) Motion til hæmodialysepatienter

Forfattere:

Karina Kjærsgaard Jensen Karin Dollerup Hanne Agnholt Edith Mark

Abstract:

Baggrund: Der er mellem Aalborg Sygehus og Region Nordjylland lavet en forebyggelsesaftale rettet mod sygehusets patienter. Indsatsområderne er: Kost, Rygning, Alkohol og Motion, kaldet KRAM. I hæmodialyseafsnittet på Aalborg Sygehus har en gruppe sygeplejersker ud fra KRAM-områderne valgt at sætte fokus på motion. Patienterne kan have problemer med træthed, kramper, uro og smerter i benene. Behandlingen er oftest livslang og foregår 3 gange ugentligt af 4 timers varighed. Patienterne har et begrænset energiniveau og som følge deraf, er det vigtigt at tage stilling til begreberne motion og fysisk aktivitet. I det aktuelle projekt hvor der arbejdes med motion, består motionen af cykling på sengecykel samtidig med, at patienten er i dialyse.

Formål: Formålet med projektet er at finde ud af, hvordan kroniske hæmodialysepatienter oplever deres livskvalitet, og om der evt. sker en forbedring i livskvaliteten i forbindelse med sengecykling.

Metode: Der indgik 10 patienter i projektet, og interventionsperioden var 6 måneder. Patienterne blev interviewet i fokusgruppe ved projektstart og - slut. Efter startinterviewet og i de efterfølgende 6 måneder cyklede patienterne efter evne ved hver dialyse på en sengecykel. Hver patient havde en cykeldagbog med notater om den pågældende dags cykelforløb.

Resultater: Interventionsperioden er overstået, og patienterne har cycled mellem 5 min. og op til 2 timer under hver behandling. I øjeblikket arbejdes med analyse af indsamlede data. Ønsket er, at resultaterne skal danne grundlag for fortsat sengecykling i dialyseafdelingen. Dette sker allerede, da alle projektdeltagere samt flere andre patienter cykler fast under hver dialysebehandling. Resultaterne forventes endvidere formidlet i relevant faglig sammenhæng.

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47) Musik til hæmodialysepatienter

Forfattere:

Hanne Agnholt, Birthe Gross, Inger Bjerre Rosa, Fantahun Wassie Ketema, Birgitte Schantz Laursen

Abstract:

Baggrund: Som sygeplejersker på dialyseafsnit 3 Ø på Aalborg Sygehus oplever vi ofte, at patienter, der skal i hæmodialysebehandling for første gang, er angste og psykisk påvirkede. Som personale ønsker vi at være med til at gøre oplevelserne i forbindelse med de første dialyser mindre traumatiske ved at hjælpe patienterne til at

slappe af, mens de er i dialyse.

Da musiks virkning på angst og anspændthed er veldokumenteret i litteraturen, valgte vi at lave en undersøgelse, hvor vi afprøvede, om musik kunne være medvirkende til, at patienterne følte sig mere afslappede under behandlingen.

Formål: At undersøge om musik under dialysebehandling kan reducere angst, anspændthed og rastløshed hos nystartede dialysepatienter, så de bliver afslappede under behandlingen

Metode: Undersøgelsesmetoden var et kontrolleret behandlingsforløb med et crossover design. Undersøgelsen foregik over 2 dialyser. Deltagerne var delt i 2 grupper, hvor gruppe 1 hørte musik ved første dialyse og ikke ved anden dialyse. I gruppe 2 hørte deltagerne ikke musik ved første dialyse, men først ved anden dialyse. I undersøgelsen blev anvendt spørgeskemaer, og der blev anvendt et specielt lyd - og musikprogram.

Datamateriale: Der indgik 20 patienter i projektet i alderen 42-84 år.

Resultat: Resultaterne viste, at patienter, som skal have deres første hæmodialysebehandling, bør tilbydes musik i forbindelse med denne, da undersøgelsen viste en tendens til, at musik kan have en beroligende virkning på patienterne ved deres første dialysebehandling.

Musikken tænkes anvendt i 3 Ø både til nystartede dialysepatienter og til patienter behandlet gennem flere år, som synes, at musikken virker afslappende.

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48) Mutual Information for comparing PET, CT, SPECT, and other image modalities

Forfattere:

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Abstract:

Mutual Information (MI) may be a superior tool for the registration of different image modalities of medical images such as MR, CT, PET, and SPECT. This kind of registration seems a true goal because it can release new information of high diagnostic value. In many cases the registration can be carried out by a simple optimize function, but this requires that the size of the different images

is known, and that the images are scaled to the same size. This may or may not be the case, as the scaling tags are not always visible in the header. However, MI seems immune to this phenomenon because the algorithm can look directly into the information content and estimate the needed scaling itself. This makes MI a useful tool for comparing recordings of different modalities from the same patient, recorded at the same time, or before and after a treatment. MI even allows comparison of images from different individuals. We have compared phantom PET, CT, and SPECT images by an MI algorithm developed and improved in Matlab R2010a. The algorithm can also handle colour images from histological serial sections, or e.g. Doppler UL.

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49) New ways of storage of boneflaps after kraniektomi

Forfattere:

Overlæge Gudrun Gudmundsdottir, reservelæge Pia Olesen

Abstract:

Decompressive kraniektomi is an important, and increasingly used treatment modality in intensive therapy after traumatic brain injury and extensive brain ischemia. Background: In Aalborg we have years of experience with this treatment modality. The storage of the bone and replacement traditionally has been associated with a relative high rate of complications. As of last year we have started a bio-bank in cooperation with the local blood bank. In this bio-bank the bone has been stored in a deep freezing environment at -80 C.

Results: Since the change in our procedure, we have explanted 20 boneflaps and re-implanted 13. 3 patients died of their injuries and 4 have not yet had the bone re-implanted. Of the remaining 13 patients none have experienced infections or complication of bone re-absorption.

Conclusion: We conclude that a bio-bank is a safe way to store the boneflaps, and furthermore minimizes the rate of complications in relation to the replacement procedure.

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50) Omega-3 Fatty Acids And Complications After Colorectal Surgery

Forfattere:

L. S. Sorensen¹, H. H. Rasmussen¹, E. B. Schmidt¹, I. V. Aardestrup¹, O. T. Ussing¹, K. Varming¹, H. C. B. Norgaard¹, K. Lindorff-Larsen¹. ¹) Aalborg Hospital, Aarhus University, Aalborg, Denmark

Abstract:

Rationale: Several studies indicate that peri-operative supplementation with omega-3 fatty acids may reduce the risk of postoperative complications after major surgery through an immune modulating effect. Omega-3 fatty acids are incorporated into cell membranes and thereby influence the immune function. The purpose of this randomized placebo controlled trial was to discover whether an omega-3 fatty acid enriched oral nutritional supplement (ONS) given for 7 days before surgery and after surgery would be sufficient to reduce the risk of postoperative complications, and see the extent of incorporation of omega-3 fatty acids into cell membranes.

Methods: 148 patients, who had performed colorectal cancer surgery, were given an omega-3 fatty acid enriched ONS (Supportan® Fresenius Kabi; 200 ml twice daily) for 7 days before surgery and after surgery, providing 2g of (EPA) and 1g of (DHA) per day. The patients were followed for 30 days, the complications were recorded. Blood samples were analysed for incorporation of omega-3 fatty acid into cell membranes. The fatty acids were extracted and the composition was analysed by gas chromatography.

Results: There was a statistically significant difference between the 2 groups with regard to incorporation of omega-3 fatty acid (EPA) into cell membranes. (Students t-test P = 0,000). Conclusion: EPA was incorporated into cell membranes within one week. This trial showed that there was statistical significant difference between the 2 groups in regards of incorporation of omega-3 fatty acid into cell membranes, after 7 days intake pre- and post-operatively of 3g omega-3 fatty acids pr. day. We await further data analysis.

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51) Omsorg i operationssygepleje: En undersøgelse af betydningen af og funktionen for en sygeplejerske, der prioriterer det relationelle samspil med patienten under et kirurgisk indgreb i lokal anæstesi

Forfattere:

Liselotte Bruun Bierregaard Sygeplejerske, Gitte Olesen Sygeplejerske, Charlotte Brun Thorup Udviklingsygeplejerske cand.cur og Erik Elgaard Sørensen postdoc, cand. cur., ph.d. Hjerte-Lunge og Karkirurgisk operationsafsnit, Hoved-Hjertecenter og Forskningsenhed for Klinisk Sygepleje Aalborg Sygehus, Århus Universitetshospital

Abstract:

Baggrund: Hjerte-, Lunge- og Karkirurgisk operationsafsnit påbegyndte i 1999 anlæggelse og fjernelse af centrale venøse adgange på patienter i lokal anæstesi i onkologisk ambulatorium. Da onkologisk ambulatorium ligger geografisk langt fra den centrale operationsgang, mindskes muligheden for at rekvirere hjælp fra kollegaer på operationsgangen. Derfor blev der bevilget en tredje operationssygeplejerskes tilstedeværelse til disse indgreb på patienter i lokalanæstesi i onkologisk ambulatorium. Funktionen for den tredje sygeplejerske har udviklet sig og i dag prioriterer denne det relationelle samspil med patienterne under indgrebene.

At være tre operationssygeplejersker under indgrebene i onkologisk ambulatorium er ressourcekrævende, men højt prioriteret. Personalet oplever prioriteringen af det relationelle samspil meget positivt, det er blevet en indforstået selvfølgelighed, at patienterne har glæde af funktionen. En udokumenteret antagelse, der har medført, at personalet gerne ser funktionen overført til andre lignede indgreb.

Formålet: At undersøge betydningen af og funktionen for den sygeplejerske, der prioriterer det relationelle samspil med patienten under et kirurgisk indgreb i lokal anæstesi. Metode: Fænomenologisk-hermeneutisk tilgang. Der foretages observationsstudier af det relationelle samspil mellem sygeplejerske og patient, der får anlagt Port a Kath. Efterfølgende interviewes patienterne med afsæt i deltagerobservation og semistruktureret interviewguide. Der inkluderes 14 patienter.

Tidsplan: I forår 2010 tilvirkes empiri og i efteråret foretages analyse, fortolkning samt rapportering af fund.

Perspektivering: Det forventes, at undersøgelsens fund vil være anvendelige, når operationssygeplejersker, ledere og tværfaglige samarbejdspartnere diskutere, vurdere og planlægge fordeling af arbejdsopgaver og dertilhørende ressourcer på operationsafsnittet. Tilsvarende forventes undersøgelsens fund at kunne bidrage til diskussion om betydningen af omsorg i operationssygepleje.

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52) Optimization of SELDI TOF MS for protein profiling of multiple myeloma cell lines

Forfattere:

PhD student Torben Lüth Andersson, PhD Kirsten Fogd, Professor Hans E Johnsen Department of Haematology, Aalborg Hospital, Århus University

Abstract:

The background of this project is to introduce the new protein identification array technology SELDI TOF MS, which can be applied on clinical samples from patients with malignant B cell diseases. Comparison of protein profiles from normal and malignant tissues could lead to identification of proteins that can function as biomarkers for the disease in question. SELDI TOF MS combines matrix-assisted laser desorption/ionization (MALDI) and a variety of capture affinity techniques for protein purification and analysis. The SELDI TOF MS technique is a fast, robust and promising method for high throughput protein profiling.

The objective of this study is to optimise the method of protein isolation and analysis, which should result in reduced technical and biological variation and ultimately make SELDI TOF MS a reliable method.

The hypothesis is that choice of cell lysis buffer as well as other protein pre-purification steps will optimize the mass spike resolution and response and finally improve the reproducibility.

The aims are to:

1. To establish and validate methods for protein purification
2. To optimise fractionation, "chip array" purification and analysis of subcellular proteins.
3. To establish a database of Mass spec array profiles, from B cell lines.

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53) Pain Sensitivity and Experimentally Induced Sensitization in Red haired Women

Forfattere:

Isabelle M. Larsen, Birgit Koch-Henriksen, Trine Andersen, Dagmar Lunden, Asbjørn M. Drewes, Lars Arendt-Nielsen

Abstract:

Pain sensitivity has been linked to the melanocortin-1 receptor (MC1R) gene. A mutation in MC1R can result in pale skin and red hair in humans. The aim of this study was to investigate pain sensitivity in redheads. Twenty healthy women with pale skin and red hair (mean age 32 years, range 20-55) and 20 healthy women with blond/dark hair (mean age 31 years, range 20-51) participated in this study. On the left arm pain tolerance threshold to heat and pressure stimulation was determined. On the right arm 0.075% topical capsaicin cream was applied for 30 minutes. Thereafter the secondary hyperalgesic area was estimated with a calibrated filament (von Frey hair, 15g) and the allodynic area by a soft brush. This was done 0, 30, 60 and 90 minutes after removing the cream. There was no difference in either heat or pressure pain tolerance thresholds between the two groups (heat: $P=0.8$; pressure: $P=1.0$). The areas to pin-prick were significantly smaller for red haired women than non-red haired women ($P=0.014$). There were no significant differences in the allodynic areas. Redheads were less sensitive to capsaicin induced hyperalgesia compared to non-redheads which could be a manifestation of central anti-hyperalgesic involvement of MCR's.

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54) Perception of body image and sexuality for women with mastectomy, -in the acute phase of surgery and as determinants of women's choice of reconstruction

Forfattere:

Helle Damgaard Nielsen¹ RN, Anette Møller Gregersen RN², Charlotte Brun Thorup RN, MSc in Nursing, Birgitte Schantz Laursen RN, MSc in Nursing, PhD³ Aalborg Hospital, Aarhus University Hospital, Denmark ¹) Department of Plastic- and Reconstructive Surgery, ²) Department of Breast Surgery, ³) Clinical Nursing Research Unit

Abstract:

Background: Having cancer and having one breast removed can affect all aspects of a woman's life. The literature shows that many women experience an altered body image and sexuality, loss of femininity, a feeling of less sexual attractiveness and decline in self-esteem. Furthermore mastectomy can affect women's perception of quality of life and psychosocial state.

In Denmark, no previous studies have focused on perception of body image and sexuality in the acute phase after mastectomy. Furthermore, no study addresses the influence of perceived body image and sexuality on the decision to have breast reconstruction or not.

Methods: The study will be conducted within a phenomenological and hermeneutical frame of reference. Data will be gathered through qualitative interviews with 12 women with mastectomies.

Analyses and interpretation will follow Steinar Kvaales levels of interpretation.

Objectives: The aim is to explore perceived body image and sexuality after having had mastectomy in the acute phase. Further, the aim is to focus on body image and sexuality as determinants for whether women choose reconstruction or not.

Insight into women's perceived body image and sexuality is valuable to provide better quality nursing care to women treated with mastectomy and reconstruction.

Results: It is expected that interviews, analysis and interpretation will be conducted in 2010.

The results are expected to be edited and published in the beginning of 2011.

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55) Pragmatisk tilgang til analyse af multiple studier med kontinuert ikke-lineær eksponeringsvariabel

Forfattere:

Karen Margrete Due, Marianne Uhre Jakobsen, Kim Overvad og Claus Dethlefsen

Abstract:

Baggrund: Hvis flere studier betragter samme eksponering og udfald, kan det være en fordel, at kombinere studierne og lave ét samlet estimat. Dermed fås en større styrke. Hvis sammenhængen er ikke-lineær bør en metode til modellering af ikke-lineære sammenhænge anvendes.

Formål: Undersøge hvilken af analysemetoderne blandede modeller og metaanalyse, der er bedst at anvende, når man har data fra flere studier samt at vurdere metoderne restringerede kubiske splines og fraktionelle polynomier til modellering af ikke-lineære sammenhænge. Ud fra de teoretiske og praktiske sammenligninger udarbejdes anbefalinger for valg af metoder.

Materiale og metode: Metodernes teoretiske egenskaber blev sammenlignet og efterprøvet på en praktisk problemstilling vedrørende kvinders ændringer i forholdet mellem livvidde og højde i tilknytning til indtag af fed fisk. Analyserne blev lavet for 42.437 kvinder fordelt på syv centre i fire europæiske lande.

Resultater: Den største forskel mellem blandede modeller og metaanalyse er, hvordan justering for forklarende variable tolkes. Ved metaanalyse justeres forskelligt for hver variabel i hvert studie. Ved blandede modeller er det muligt at lade alle variable indgå med en fælles regressionsparameter eller med en parameter per studie. På baggrund af dette anbefaler vi blandede modeller til analyse af flere studier simultant.

Både restringerede kubiske splines og fraktionelle polynomier giver glatte ikke-lineære kurver. Restringerede kubiske splines ligger tæt op af data og kan derfor give svært fortolkelige grafer, mens fraktionelle polynomier giver mere overordnede kurver. Vi anbefaler derfor at anvende restringerede kubiske splines når der justeres for forklaringsvariable, men fraktionelle polynomier når man modellerer eksponeringsvariablen.

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56) Prediction of renal function (GFR) from cystatin C and creatinine in children: Body cell mass increases accuracy of the estimate.

Forfattere:

Trine B. Anderse, Lars Jødal, Martin Bøgsted, Erland J. Erlandsen, Anni Eskild-Jensen, Jørgen Frøkiær; Jens Brøchner-Mortensen

Abstract:

AIM: To derive an accurate prediction model for estimating glomerular filtration rate (GFR) in children based primarily on the endogenous renal function marker cystatin C (CysC) and body cell mass (BCM).

THEORY: Cystatin C is produced at a constant rate in all cells of the body and is excreted by glomerular filtration followed by catabolization in the tubular cells. We hypothesized that production rate is proportional to body cell mass (BCM) and inferred GFR (mL/min) to be proportional to BCM/CysC.

MATERIAL AND METHODS: GFR was determined with ⁵¹Cr-EDTA-clearance in 131 children (52 girls, 79 boys) aged 2-14 years. GFR was 14-147 mL/min/1.73m². BCM was estimated using bioimpedance spectroscopy. Log-transformed data on BCM/CysC, serum creatinine (SCr), body-surface-area (BSA), height×BSA/SCr, CysC, weight, sex, age, height, serum urea and albumin were considered possible explanatory variables using robust regression in a forward, stepwise procedure. GFR (mL/min) was the dependent variable. The accuracy and precision of the prediction model were compared to other prediction models from the literature, using k-fold cross-validation. Local constants and coefficients were calculated for all models.

RESULTS: New prediction equation $GFR (mL/min) = (BCM/CysC)^{0.39} \times (height \times BSA / SCr)^{0.65} \times 10.2$ could predict 99% within $\pm 30\%$ of reference GFR, and 66% within $\pm 10\%$. This was higher than all other equations. The present equation also had the highest R² and the narrowest 95% limits of agreement.

CONCLUSION: The new equation predicts GFR with higher accuracy than other equations. Endogenous methods are, however, still not accurate enough to replace exogenous markers when GFR must be determined with high accuracy.

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57) Preoperative plasma D-dimer is a predictor of one-year survival in colorectal cancer patients: A prospective clinical cohort study

Forfattere:

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Abstract:

Background. Fibrin formation is required for tumor angiogenesis, metastasis and invasion. Previous studies have demonstrated that plasma D-dimer - a degradation product of cross-linked fibrin - correlates with tumor stage in patients with colorectal cancer.

Objective. To examine the impact of preoperative plasma D-dimer levels in predicting short-term survival in colorectal cancer patients admitted for intended curative surgery.

Methods. We measured preoperative D-dimer levels in a sample of 194 consecutive patients admitted for intended curative surgery and performed Kaplan-Meier survival analysis according to these levels. The survival curves were compared by means of the log-rank test for equality of survivor functions and the preoperative plasma D-dimer levels were correlated with one-year survival using crude and adjusted Cox regression analysis.

Results. The crude and adjusted hazard ratios of death was 4.1 (95% confidence interval (CI), 1.7 - 9.5) and 3.6 (95% CI, 1.5 - 8.8), respectively, in the positive D-dimer group when compared with the negative D-dimer group. The adjusted Cox regression model suggested that the preoperative D-dimer level was as strong a prognostic factor as Dukes' stage D disease. It was a stronger predictor than age, gender, tumor localisation and presence of preoperative venous thromboembolism.

Conclusion. A positive preoperative D-dimer is associated with poor prognosis in patients with colorectal cancer.

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58) Protein Changes in the Vitreous Following Experimental Retinal Detachment

Forfattere:

N Mandal, GP Lewis, SK Fisher, S Heegaard, JU Prause, M la Cour, B Honoré, H Vorum

Abstract:

PURPOSE. Retinal detachment causes numerous changes in the protein expression of the retina. The goal of this study was to identify the protein changes in the vitreous following experimental retinal detachment.

METHODS. Retinal detachments were created in the right eyes of 6 rabbits by infusing a solution of Healon 0.25% in balanced salt solution via a glass pipette between the neurosensory retina and retinal pigment epithelium. Sham surgery, surgical entry of the vitreous without disruption of the retina, was undertaken in 5 other rabbits. After seven days the animals were euthanised and the eyes enucleated. The vitreous was extracted and analysed by two-dimensional polyacrylamide gel electrophoresis. Differentially expressed protein spots were processed by tandem mass spectrometry for identification. Western blotting was undertaken to verify the results.

RESULTS. Ten protein spots were found to be at least two-fold differentially expressed ($p < 0.05$ Mann-Whitney U test) when comparing the vitreous samples of the retinal detachment and sham surgery groups. Protein spots that were upregulated in the vitreous following retinal detachment were identified as being fragments of albumin and those that were downregulated were identified as collagen type I α 1 fragments, peroxiredoxin-2 and α -1-antitrypsin.

CONCLUSIONS. The proteins identified in this study may play an important role in the pathophysiological response of the vitreous and retina following retinal detachment, and could potentially be used as biomarkers to predict the status of the retina under these conditions, and lead to new strategies for the prevention and treatment of associated complications such as proliferative vitreoretinopathy.

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59) Reproducibility of human experimental pain model used in basic and clinical trials

Forfattere:

Trine Andresen, Anders Klitgaard Nielsen, Dorte Lassen, Lars Arendt og Asbjørn Mohr Drewes

Abstract:

Introduction/aim: Ongoing pain, allodynia and hyperalgesia are prominent symptoms in chronic pain conditions. To investigate these symptoms experimental surrogate models can be used e.g. intradermal injection of capsaicin or glutamate. The aim of this study was to investigate reproducibility of intradermal injection of capsaicin and glutamate.

Method: Fourteen healthy male volunteers (mean age 25.3 ±4.4 years, range 18-38 years) participated in two identical periods separated by at least 7 days. A period consisted of one day. In each period glutamate was injected intradermally in the right forearm and capsaicin in the left. Secondary hyperalgesic area was assessed with a von Frey filament of 26g 15, and 30 minutes after injection.

Results: The secondary hyperalgesic areas 15, and 30 minutes after intradermal administration of glutamate were: Period 1; mean 19.5 ±20, and 19.2 ±23cm², respectively and Period 2; mean 14.6 ±25, and 14.3 ±33cm², respectively. There was no significant difference between the measurements on the same day F=0.02, P=0.9 or between days F=1.7, P =0.2. For capsaicin the secondary hyperalgesic areas 15, and 30 minutes after intradermal administration were: Period 1; mean 89.1 ±56, and 81.7 ±41cm², respectively and Period 2; mean 77.9 ±76, and 72.5 ±61cm², respectively. There was no significant difference between the measurements on the same day F=1.5, P =0.2, or between days F=0.6 P =0.5. The reproducibility was good (all ICC > 0.77).

Conclusion: The two models were reproducible within and between days and can be implied in basic and clinical studies investigating analgesics.

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60) Risikofaktorer hos patienter med øjenvenetromboser, heriblandt trombofili

Forfattere:

Caroline Odderskov, Hanifa Awneh, Helle Andreasen, Marianne Severinsen, Henrik Vorum, Søren Risom Kristensen.

Abstract:

Introduktion: Øjenvenetromboser er en relativt sjælden tromboembolisk manifestation. Årsager og risikofaktorer til trombosering på dette sted er uklar. Trombofili har været overvejet som risikofaktor. Kendte risikofaktorer er bl.a. Diabetes Mellitus (DM), rygning, glaukom og alder. I litteraturen findes studier der antyder, at trombofili øger risikoen for øjenvenetromboser, men generelt er studierne små, og der er ingen klar evidens.

I Aalborg har man gennem en årrække udført trombofiliudredninger på yngre patienter med øjenvenetromboser. Det er uvidst, hvad man har opnået med disse udredninger.

Formål: at undersøge, hvad trombofiliudredningerne på patienter med øjenvenetromboser har bidraget med, og hvilke andre risikofaktorer, der kunne være positivt associeret med dannelse af øjenvenetromboser.

Materialer og Metode: Fra database fra Øjenafdeling er trukket, hvilke patienter der har diagnoserne centraløjenvenetrombose (CVO) og grenøjenvenetrombose (GVO) Journaler på disse patienter er systematisk gennemgået efter skema omhandlende diagnose, behandling samt relevante risikofaktorer. Der blev fundet hhv. CVO (180) og GVO (173). Patientgruppen har en ligelig fordeling i køn ♀(177) ♂(177), gennemsnitsalder for trombotisk manifestation er 67 år.

Resultater: Af risikofaktorer i den samlede gruppe sås hyppigt DM (14%) og Hypertension (59%). Ca 8 % havde glaukom, 14 % var i behandling for hyperkolesterolemie, 3 % havde atrieflimren, 6 % tidligere AMI, mens kun 2 % havde haft tidligere trombose. Knap 50 havde fået udført trombofiliudredning, resultat er endnu ikke opgjort. Konklusion: Projektet beskriver forekomst af risikofaktorer i en dansk population med øjenvenetromboser og kan give en indikation af nytteværdien af trombofiliudredninger.

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61) Rising incidence and persistently high mortality of bacteraemia: A 15-year population-based study in Denmark

Forfattere:

Mette Søgaard, Mette Nørgaard, Claus Dethlefsen, and Henrik Carl Schönheyder

Abstract:

Background. Little is known about temporal trends in incidence and mortality of bacteremia in a general population.

Methods. We conducted a population-based cohort study in Northern Denmark to examine changes in the bacteremia occurrence and 30-day mortality between 1992 and 2006. All patients diagnosed with bacteremia were identified in a population-based bacteremia database and followed for mortality through the Danish Civil Registry System. We determined annual age and sex standardised rates of total numbers of bacteremia episodes, the incidence of first-time episodes, and adjusted 30-day mortality by place of acquisition and study period.

Results. We identified 14,303 bacteremia episodes of which 10,706 (74.9%) were incident. The age and sex standardized overall rate of bacteremia increased by 68% between 1992 and 2006, and the incidence by 47% (from 108 to 159 per 100,000 person-years). Incidence rates of community-acquired and nosocomial bacteremia peaked at 92.1 and 77.2 per 100,000 person-years in 2004 and 2002, respectively, while the incidence of health care-associated bacteremia increased steadily from 2.9 to 39.8 per 100,000 person-years. Total number of deaths increased from 757 in 1992-1996 to 1036 in 2002-2006. The 30-day mortality decreased in patients with community-acquired bacteremia (19.0% in 1992-1996 and 15.4% in 2002-2006), but remained virtually unchanged for health care-associated (23.4% and 22.0%, respectively) and nosocomial bacteremia (27.9% and 27.7%).

Conclusions. The occurrence of bacteremia in Northern Denmark, regardless of acquisition, has increased considerably over the past 15 years and, combined with persistently high 30-day mortality, is of clinical and public health concern.

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62) Sammenligning mellem SPECT og pinhole til præoperativ skintigrafisk diagnostik af parathyroideaadenom ved primær hyperparathyreoidisme

Forfattere:

Olga Tcacenco¹; Ola Thorsson², Lars Jødal¹ ¹Nuklearmedicinsk Afdeling, Aalborg Sygehus, Aarhus Universitetshospital. ² Klinisk Fysiologisk Nuklearmedicinsk Afdeling Nuklearmedicinsk Afdeling, Køge Sygehus.

Abstract:

Formål: At sammenligne to velkendte, skintigrafiske protokoller til præoperativ diagnostik af parathyroideaadenom for at øge korrektheden af parathyroideaaskintigrafi ved primær hyperparathyreoidisme.

Metode: 33 inkluderede patienter fik udført parathyroideaaskintigrafi med følgende billedoptagelser ved brug af ^{99m}Tc-MIBI: 1) tidlig skintigrafi med high resolution (HR) kollimator i anterior projektion (AP); 2) pinhole-kollimator i AP og skråoptagelserne right anterior oblique (RAO) og left anterior oblique (LAO) 10 min. efter injektionen af det radioaktive lægemiddel; 3) single positron emission computer tomography (SPECT) ca. 45 min efter injektionen af det radioaktive lægemiddel; 4) sen skintigrafi med HR-kollimator og skråoptagelser med pinhole-kollimator ca. 90 min efter injektionen af det radioaktive lægemiddel; 5) 5 dage senere thyroideaaskintigrafi med ^{99m}Tc-pertechnetat med pinhole i samme projektioner.

Billederne fra de 33 patienter blev opgjort efter to forskellige protokoller:

Protokol A: HR AP + pinhole AP + RAO + LAO (tidlig og sen) + thyroideaaskintigrafi med pinhole AP + RAO + LAO

Protokol B: HR AP tidlig + SPECT + HR AP sen + thyroideaaskintigrafi med pinhole AP + RAO + LAO.

Resultater: Ingen statistisk signifikant forskel i sensitivitet/specificitet mellem protokol A (77%/97%) og protokol B (80%/97%).

Konklusion: SPECT og pinhole har høj og ens specificitet, mens sensitiviteten er lavere for begge teknikker, men uden signifikant forskel. Tidsmæssigt er SPECT protokollen dog mere patientvenlig, og kamearakapaciteten vil øges ved kun at anvende ét kamera ved SPECT (Protokol B) frem for to forskellige kameraer ved pinhole + HR (Protokol A).

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63) Screening for sensitivity towards vincristine and doxorubicin in a newly established B-cell cancer cell line panel revealed great variability in the dose resulting in 50% growth inhibition (GI50)

Forfattere:

Kirsten Fogd, Martin Bøgsted, Steffen Falgreen Larsen, Helle Høholt, Ann-Maria Jensen, Louise Hvilshøj Madsen, Mette Nyegaard, Suzette Sørensen, Johanne M Holst, Alexander Schmitz, Hans E. Johnsen, Karen Dybkær.

Abstract:

Drug sensitivity is an important field in cancer research, and systematic screening of dose-response in cancer cell lines (CCL) is an important tool when studying the sensitivity mechanisms.

The objective of the present study was to provide a model system for malignant B-cell derived cancers that can be used to study the molecular impact of antineoplastic drugs. The hypothesis is that subtle molecular differences between CCL can explain the diversity observed in the drug sensitivity in CCL. Understanding these differences will provide better understanding of the resistance mechanisms behind. The aims of the study were to 1) establish a haematological CCL panel; 2) perform dose-response screens of the CCL towards vincristine and doxorubicin; 3) compare gene expression profiles of CCL with differences in drug sensitivities.

Results: Firstly, 25 CCL were tested for their sensitivity towards vincristine and doxorubicin. A substantial difference in GI50-values was seen (doxorubicin 0.02-0.5 ug/ml, vincristine 0.8-8.0 pg/ml). Secondly, unsupervised hierarchical clustering of the CCL based on gene expression divided CCL according to disease (DLBCL vs. multiple myeloma) and not drug sensitivity. This was expected, as disease is the major biological difference between the selected CCL.

Perspective: The next step will be to undertake a supervised bioinformatic approach, where information of drug sensitivity of the CCL will be included in the analysis. It is the hope that a gene list will be generated that can explain part of the mechanism behind the drug sensitivity.

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64) Sense of coherence in adolescents and receive of social benefits later in life. A 12 years follow-up study

Forfattere:

Else Toft Würtz, Jens Tølbøll Mortensen, Kirsten Fonager.

Abstract:

Background: There is an increasing attention to social benefits in the Danish municipalities. In 1998 a study of teenagers' use of over the counter pain killers based on a self-administrated questionnaire was performed. The questionnaire also included seven 'sense of coherence' (SOC) items. The aim of the present study was to study the association between a low SOC score in the teens and the risk of receiving social benefits in the young adulthood.

Method: The basic population consisted of pupils from 15 public schools, randomly selected in the former North Jutland County. 802 pupils in seventh and eighth grades responded to a questionnaire as part of a school lesson. The pupils' age varied from 12-16 years. Low SOC-score was defined as the lowest 1st quartile. Data were linked to the DREAM database (Danish Rational Economic Agents Model) which lists information on public transfer payments of any kind on a weekly basis. From DREAM information of the selected public transfer payments (yrs 2000 throughout 2009) was withdrawn.

Results: For girls with a low SOC score their risk of receiving unemployment benefits (RR 1.4 (1.1-1.6)), social assistances (RR 1.8 (1.4-2.4)), sickness benefits (RR 1.5 (1.2-1.9)), and permanent health-related benefits (RR 10.3 (1.1-95.5)) were significantly increased, compared to girls in the 2th-4th SOC score quartile. For boys only minor differences were found between the SOC score groups.

Conclusion: These findings may contribute to an early and more selective approach to support teenage girls with a low sense of coherence.

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65) Sexological counselling in patients with prostate cancer

Forfattere:

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Abstract:

Prostate cancer is common and is being diagnosed in younger men now compared with two decades ago. The treatment options is radical prostatectomy, endocrine proliferation often combined with radiation therapy. Common to all treatments is that they often result in varying degrees of erectile dysfunction and this is one of the major concerns of patients undergoing treatment for prostate cancer.

In this regard, the Urological department, Aalborg Hospital, Aarhus University Hospital, in the autumn 2009, did establish a pilot project where this patient group is offered sexological counselling. The pilot project will run until June 2011. The purpose of sexological counselling is that patients, whom because of illness or treatment has got sexual problems, regain a satisfying sex life. For some patients, it is about to regain the sexual performance. In other patients where the ability to complete a sexual intercourse can not be re-established, this is to support them to live with the situation, and advise in relation to other ways of expressing their sexuality.

The sexological counselling offered to the patient and his partner consists of:

- conversation, both individual and couple
- guidance on the use of pharmacological treatment of erectile dysfunction
- guidance and training in the use of aprostadil
- guidance on the use of sexual aids

The sexological counselling is carried out by students in sexological counselling (DACs) and specialists in urology.

Mid term review of the pilot project shows that there is a great need in patient group for sexological counselling.

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66) Simulation based teaching of paramedics in endotracheal intubation A mannequin study

Forfattere:

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Abstract:

We examined 24 Danish paramedics' ability to intubate by using the Airtraq® (an optical laryngoscope by Prodol, a disposable device) in a centre of medical simulation.

The paramedics went through a 1-day course at CeMS (Centre for Medical Simulation, the department of Anaesthesia, Aalborg, Denmark).

The objective of the course was that each paramedic should be able to intubate using the Airtraq® in less than 30 seconds, as recommended in ERC Guidelines 2005.

Methods: A mannequin study with skill training. The skill training was divided into a basic part of practice on a Laerdal® Airway Management Trainer and an advanced part of practice on two different mannequins (Meti HPS and AIRSIM multi) with five attempts to intubate on each mannequin. We observed and registered a time measuring point: indicating in seconds the time spend from the Airtraq® passing the mannequin tooth row to secure placement of the endotracheal tube registered by thorax movements.

Results: The median time for intubation on Laerdal(R) Airway Management Trainer is as follows: 1st attempt: 50,00sec, 2nd attempt: 29,50sec, 3rd attempt: 28,50sec, 4th attempt: 25,50sec, 5th attempt: 23,00sec. The median time in advanced practice was less than 30 seconds, except the first attempt on METI HPS, which was 37,00sec. The 5th attempt of intubation on METI HPS and AIRSIM multi was respectively 22,00 and 16,00sec. There were no failed attempts of intubation.

Conclusion: The paramedics were able to intubate mannequins using the Airtraq within a time limit of less than 30 seconds and with 100% success.

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67) Single clone intron deletion detected on BAC Array led to the diagnosis Duchennes Muscular Dystrophy in boy with mental retardation and behavioural disturbances

Forfattere:

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Abstract:

Background: Duchenne muscular dystrophy (DMD) is a X-linked recessive disorder caused by mutations in the DMD gene, which encodes the protein dystrophin. One third of DMD cases are caused by de novo mutations in the DMD gene. The absence of dystrophin causes progressive, non-reversible muscle cell degeneration. DMD can be associated by mild mental retardation and neuropsychiatric disorders such as autism and ADHD.

Case study: A five year old boy was referred to us by Children's Psychiatric Hospital. The indication for genetic analysis was mental retardation. The boy also showed general developmental delay and attention deficit.

Chromosome analysis and Southern Blot analysis for Fragile X syndrome gave normal results. BAC Array CGH (Cytochip 2.0) revealed a single clone deletion on Xp21.2 in intron 2 of the DMD gene. To confirm the BAC Array results, a MLPA analysis was performed, this surprisingly revealed a duplication of exon 3-7 of the DMD gene, which will often give a DMD phenotype. Finally, we did a follow-up study in an oligonucleotide array-CGH analysis (Agilent 180K), where the complex DNA copy number changes were not clearly resolved. The referring physician later confirmed that the boy also had muscle weakness. Muscle biopsy and elevated level of creatin kinase confirmed the diagnosis DMD.

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68) Small, dense LDL partikler i serum korrelerer med forekomst af stenose af koronarkar

Forfattere:

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Abstract:

Small, dense (sdLDL) partikler regnes for de mest atherogene af LDL kolesterolpartikler, hvilket skyldes, at de lettere penetrerer gennem endothelet og aflejres i karvæggen, og at de lettere oxideres end større LDL partikler. Vi har undersøgt sammenhængen mellem atherosklerotiske forandringer i koronarkarrene bedømt ved hhv. invasiv koronarangiografi og CT-angiografi og den fraktionelle forekomst af sdLDL-partikler i et prospektivt kohortestudie. Studiepopulationen bestod af elektive

patienter henvist til kardiologisk afdeling til koronar angiografi. Patienterne fik foretaget både en CT-angiografi på radiologisk afdeling og en invasiv koronarangiografi. SdLDL viste sig at være en signifikant, univariat prediktor af forekomsten af stenose bedømt ved både invasiv angiografi: $n=175$, $OR=1,36$ pr. 10% stigning i sdLDL; $95\%CI=[1,13;1,64]$ ($p=0,001$) og CT angiografi: $n=159$, $OR=1,26$; $95\%CI=[1,03;1,53]$ ($p=0,02$). Justering for alder, køn, rygning, livvidde og serum LDL-cholesterol påvirkede ikke sammenhængen mellem sdLDL og forekomsten af stenose bedømt ved invasiv angiografi: $OR=1,26$; $95\%CI=[1,02;1,56]$ ($p=0,03$), men sammenhængen med CT-verificerede stenoser blev insignifikant: $OR=1,21$; $95\%CI=[0,97;1,52]$ ($p=0,09$). Vi konkluderer, at sdLDL er en markør for forekomsten af koronar atherosclerose.

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69) Stability Selection of Chemoresistance Marker Genes

Forfattere:

Steffen Falgreen, Hans E. Johnsen, Martin Bøgsted

Abstract:

Background: Recent reports indicate that gene expression (GEP) signatures developed on the basis of drug screened cancer cell lines may predict the clinical outcome of chemotherapy. However, these GEP signatures typically contain many false positives which we hypothesize is partly due to instability in the gene selection algorithms. Here we present our results from generating a stable GEP signature for prediction of melphalan resistance in multiple myeloma patients.

Methodology: To accommodate for instability in genomics studies a recently presented approach called stability selection is applied (Meinshausen and Bühlmann, 2010, JRSS). Stability selection combines high dimensional gene selection algorithms with subsampling. This is done by randomly subsampling half the dataset and observing which genes the selection algorithm chooses most frequently. These stable genes are then used in the GEP signature. The approach is tested by generating a GEP signature capable of predicting resistance to melphalan through a panel consisting of 18 malignant B-cell cancer cell lines recently established in our own laboratory. The predictive value of the generated resistance index was retrospectively validated in a publicly available clinical dataset concerning multiple myeloma through Kaplan-Meier

survival analysis.

Results: According to the predicted resistance index the patients were divided into three groups; sensitive(15%), intermediate(75%) and resistant(15%). Those predicted to have a poor response to melphalan have an inferior survival compared to patients in the intermediate and sensitive groups (log-rank test P-value=0.0004).

Conclusion: We have established a stable way of selecting marker genes for chemoresistance and establishing a GEP signature capable of predicting clinical outcome of melphalan treated multiple myeloma patients.

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70) Studies of small Discrete Populations of B Cells by Microarray Technology

Forfattere:

Kim Steve Bergkvist, Hans E. Johnsen, Mette Nyegaard

Abstract:

Multiple myeloma (MM) is an incurable B-cell malignancy characterised by the accumulation of malignant plasma cells in the bone marrow. It is at present unclear whether the malignant transformation occurs solely in the end stage differentiated plasma cell or in some instances can be traced back to an earlier B-cell maturation stage like the memory B-cell or plasmablasts. The hypothesis is that aberrantly spliced genes in B-cell subpopulations can provide clues to the cellular origin of the disease and that subpopulation specific gene expression in patients is correlated to disease outcome.

The aim of the project is to establish a protocol for handling small number of cells and performing global gene expression on B-cell subpopulations from blood and bone marrow of MM patients and healthy control individuals.

Results: By combining an optimized panel of CD markers with RNA amplification we have to date performed global gene expression analysis on down to 5000 memory B-cells and 2800 plasmablasts from healthy individuals using the Affymetrix Exon array 1.0. Preliminary data on subpopulations from the blood of six healthy individuals show that the expression of transcription factor PAX5, BCL6, MTA3, BLIMP1 and IRF4, which are all hallmark genes for B-cell differentiation are highly consistent with literature. Investigating splice variants of known genes

could provide novel clues to the understanding of the cellular origin of MM.

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71) Teamwork – et keyword i udviklingen af en professionel arbejdsplads

Forfattere:

Bente K. Poulsen, Betina Bertelsen, Dorte Elise Holdgaard, Jonna Mogensen, Kirsten Thorup Vinther, Mette Mørch Sloth, Susanne Winther Sørensen

Abstract:

Baggrund: Der stilles øgede krav fra borgere og politikere til kvaliteten i det samlede patientforløb. Personalet og ledelsen forventer, at pleje og behandling udføres på et højt kvalitativt niveau. Der er stort behov for rekruttering og fastholdelse af dygtige medarbejdere. Sammenhold ovenstående med en afdeling med et kompleks patientklientel, der stiller store krav til personalets faglighed; en intermediær stue, der optager mange ressourcer samt en del plejepersonaler under oplæring og mange uddannelsessøgende.

Formål: • At etablere faglige praksisfællesskaber, hvor en gensidig forhandling og dialog kontinuerligt vil forbedre den sygeplejefaglige kvalitet overfor patienter, pårørende og samarbejdspartnere. • At give mulighed for stor grad af indflydelse på - og selvstændig stillingtagen til - egen arbejdssituation • At skabe en rummelig og anerkendende organisation, hvor der er plads til personlig og faglig udvikling. • At skabe et forum, der giver mulighed for at træffe valg, tage stilling og udmønte hurtige beslutninger af faglig høj kvalitet

Metode: • Nedsættelse af styregruppe med repræsentation af medarbejdere og ledelse i hvert team. • Regelmæssige orienteringsmøder og orienteringsbreve til medarbejderne. • Hele temadage i hvert team med oplæg om teamdannelse og samarbejdsøvelser. • Løbende teammøder med deltagelse af leder og udviklingssygeplejerske efter behov

• Opfølgende temadage om faglig udvikling i hvert team og konfliktløsning. • Evaluering med blandt andet fokusgruppinterview i hvert team.

Perspektivering for praksis: Øget faglig bevidsthed og fokus på at anvende kollegernes kompetencer. Stor an-

svarsfølelse, høj grad af kommunikation, effektive arbejdsmetoder, fokus på samme mål samt løbende læring og udvikling.

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72) The 3-hour meeting process as an organisational tool for educational change and development

Forfattere:

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Abstract:

Background: At Aalborg Hospital, Denmark, the 3-hour meetings is an established process to engage junior doctors in generating educational initiatives supported by management. Moreover, the meetings are utilised for hospital management to obtain focused improvements. Summary of work: The 6 other DanMED roles than medical expert required from the Danish Health Authorities are difficult to grasp - hence there is a need for concrete guidelines as to how to qualify within these roles. Therefore the agenda for 3h meetings 2009 was to provide ideas on how to obtain these qualifications in the clinical work setting.

Summary of results: A wide arrange of ideas for obtaining DanMED qualifications in the workplace were elicited: 44 ideas for Communicator, 40 for Collaborator, 45 for Scholar, 21 for Professional, 34 for Manager, and 34 ideas for Health Advocate. From previous years, we know that we can expect 2/3 of the initiatives to be partly or fully implemented. Effects of focus for 2009 can already be seen with departments arranging meetings within Health Advocating or making posters providing overview of how to obtain the roles.

Conclusions: By focusing the 3h meetings, specific educational changes are made that would arguably not occur otherwise.

Take-home message: The 3h process is an organisational tool for educational change and development.

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73) The effect of low-dose n-3 fatty acids on leukotriene biosynthesis in an overweight population.

Forfattere:

Michael Skjelbo Nielsen, Anders Henriksen, Trine Madsen, Tina Obel, Inge Aardestrup, Erik Berg Schmidt.

Abstract:

Background: Long chain n-3 poly unsaturated fatty acids (n-3 PUFA) from fish have been shown to reduce the incidence of cardiovascular morbidity and mortality. However, optimal dosage and causal effects remain unclear. Some evidence suggests that anti-inflammatory properties, partly due to inhibition of proinflammatory leukotrienes (LT), could be an important causal factor. This study aimed to investigate the acute and short term effect of n-3 PUFA in a recommended dosage on proinflammatory LT levels in a population, which is known to be in a state of low grade inflammation.

Methods: 50 patients with abdominal obesity were randomly assigned to receive a daily supplement of either 1 g n-3 PUFA or placebo (oliveoil). Blood and adipose tissue samples were collected at baseline, after 1 day and after 6 weeks of intervention.

Findings: Data are collected, but not completely analysed at this time. Using repeated measures ANOVA, the analysis will address the question, whether the change in LT level over time (1 day and 6 weeks, respectively) is different in the PUFA group than in the placebo group. This will be studied for two different leukotrienes (LTB4 and LTB5). Secondly, we will investigate, whether the levels of n-3 PUFAs in cell membranes and in adipose tissue are associated with the LT levels, using a linear regression model.

Conclusions: Depends on the results.

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74) The influence of ERCP in the Interpretation of Integrated PET-CT in Pancreatic and Bile Duct Cancers

Forfattere:

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Abstract:

Background: Integrated Positron Emissions Tomography and Computer Tomography scanning (PET-CT) is effective in demonstrating recurrence of various cancers. In Denmark PET-CT is optional in the primary diagnostic work up of Pancreatic Cancer (CP) and Bile Duct Cancer (BDC). These patients often undergo therapeutic endoscopic retrograde cholangiopancreatography (ERCP) where strictures in the common bile duct are treated with stenting. The periductal inflammation caused by these stents may influence on interpretation of the PET-CT.

Material: From January 2008 to February 2010 123 patients suspicious of CP or BDC, where diagnosed and staged with PET-CT, upon referral to hospital. Nine inconclusive cases were excluded and among the rest 65 had cancer (biopsy proven, resection or clinically follow in 6 months). The remaining suffered from other cancers or benign disorders. 31 had primarily ERCP with stent before the PET-CT.

Results: In the group with stenting before PET-CT (N=31), 18 CP or BDC was correctly diagnosed and 4 as not being one of these cancers. Four cancers were not detected. Sensitivity was 81.8% and specificity 45.0%. Positive predictive value (PPV) was 78.3% and negative predictive value was 50.0%. PET-CT correctly diagnosed 37 CP or BDC in the other group with primarily PET-CT (N=83) and correctly diagnosed 36 as other cancers or benign disorders. Six cancers were not detected. Sensitivity in absence of a bile duct stent was 90.2% and specificity 86.0%. PPV was 86.1% and NPV 90.0%.

Conclusion: This small material shows a benefit of PET-CT before ERCP with bile stent in the primary staging of Pancreatic Cancer or Bile Duct Cancers.

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75) The Role of Descending Pain in Chronic Pancreatitis

Forfattere:

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Abstract:

Patients suffering from chronic pancreatitis (CP) report pain as one of the most predominant symptoms. However, the underlying mechanisms are incompletely understood. The aims of the present study were to investigate the role of descending pain modulation from supraspinal structures and central nervous system sensitization in patients reporting pain originating from CP.

Methods: Twenty-five patients with CP and 15 healthy volunteers were included. Descending pain modulation was investigated by diffuse noxious inhibitory control (DNIC) i.e., measure of descending inhibitory response following conditioning stimulation. Central pain processing was investigated as 1) the perceptual responses to multimodal (electrical, thermal and mechanical) stimulations of the rectosigmoid and 2) evoked brain potentials following electrical stimulation of the rectosigmoid. Results: In comparison with healthy volunteers, the patient group showed reduced efficacy of DNIC ($13 \pm 21\%$ vs. $39 \pm 22\%$ ($F = 3.8$, $P = .01$)) and central sensitization was indicated by remote hyperalgesia in the rectosigmoid to electrical (21 ± 15 mA vs. 27 ± 15 mA ($F = 6.2$, $P = .02$)) and heat stimulation ($51 \pm 5^\circ\text{C}$ vs. $53 \pm 4^\circ\text{C}$ ($F = 5.9$, $P = .02$)). In addition CP patients had an increased latency of the early P1 peak (Cz) to rectosigmoid stimulation (85 ± 21 ms vs. 108 ± 28 ms ($P = .02$)), possibly reflecting reorganization of central pain pathways.

Conclusions: The findings provide evidence for impaired inhibitory pain modulation and central sensitization in patients suffering from chronic pancreatitis. This insight has clinical implications, as the focus of pain treatment should not solely focus on the pancreas, but also address medications with effects on the pathological pain mechanisms.

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76) The role of miRNA and AID in B-cell malignancies

Forfattere:

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Abstract:

miRNAs are small non-coding RNA molecules that binds to specific mRNAs (their targets), and thereby inhibits protein translation. Deregulated miRNA expression is often associated with cancer, and is considered to play a profound role in both cancer initiation and progression. Deregulation of mature miRNA may take place at the level of biogenesis as a result of mutations in the miRNA transcripts. In B-cell cancers, such mutations could be caused by AID (Activation Induced cytidine Deaminase), a mutagenic factor which is involved in cutting double stranded DNA during antibody diversification in normal B-cell differentiation. Aberrantly high AID expression, in Diffuse Large B-Cell Lymphoma (DLBCL) patients, is correlated with aggressive tumor growth and poor disease prognosis.

Our hypothesis is that over-expressed AID leads to mutations in miRNA transcripts, resulting in deregulation of mature miRNAs and potentially lymphomagenesis.

We observed, using miRNA array analysis of tissue from 50 DLBCL patients, that high or low AID expression levels was correlated with distinct miRNA expression signatures. This indicates that AID might affect the miRNA expression pattern in patients. The specific impact of AID on miRNA expression will further be investigated by mutational screening of miRNA transcripts in patient samples with high AID expression. In addition, the consequence of AID over-expression in B cell lines with inherent low AID will be studied, allowing for in depth evaluation of AID effect on miRNA mutation rate and expression patterns.

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77) "They should know me by now!" – Patients' experiences of and expectations to readmission with Atrial Fibrillation.

Forfattere:

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Abstract:

Purpose: Atrial fibrillation is a chronic condition that can affect the human life in many ways. In current research and clinical practise these patients have not received much attention despite the fact that the disease can affect their life mentally, physically and socially. Mostly, treatment and development of the disease has been the centre of concerns in earlier research. Therefore, the aim of this study was to describe patients' experiences and expectations to readmission caused by Atrial Fibrillation. Method: The research has a qualitative design and consists of two qualitative focus group interviews, in which a total of ten patients participated. A phenomenological-hermeneutical approach was used.

Results: Patients can experience unnecessarily waiting time which can affect them both, mentally, psychically and socially. Furthermore, the patients who are well known to the staff often do not receive adequate attention from the health care providers, when readmitted at the cardiologic department. In addition, the patients receive much incompatible information from the health care providers, which leads them in doubts and uncertainty concerning how to proceed when they need another readmission. Patients experience not to be giving the opportunity to ask questions when readmitted.

Conclusion: To improve the patients' experiences of readmission, the health care providers could tighten the relational awareness by focusing on; meeting each patient with an open mind, letting patients pose questions and providing more uniform information.

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78) Trombofili hos patienter med iskæmisk stroke

Forfattere:

Hanifa Awneh, Caroline Odderskov, Flemming Bach, Marianne Severinsen, Søren Risom Kristensen.

Abstract:

Introduktion: Årsager til iskæmisk stroke er hyppigst aterosklerose eller embolisering pga. atrieflimren. I litteraturen angives at trombofili, dvs. biokemiske faktorer, der øger risikoen for tromboledannelse, kan være risikofaktor for iskæmisk stroke, især hos yngre. I Aalborg har man en årrække fået udført trombofiliudredninger på yngre patienter med iskæmisk stroke.

Formålet er at undersøge, hvad trombofiliudredningerne har bidraget med hos denne patientgruppe. Derudover opgøres andre risikofaktorer hos denne patientgruppe.

Materiale og metode: Fra database på Klinisk biokemisk afdeling er der udtrukket, hvilke patienter fra neurologisk afdeling, der har fået udført trombofiliudredning (ca. 500 ptt.). Journaler er fundet frem, og et struktureret skema er udfyldt på hver patient om objektiv påvisning af trombose, endelig diagnose, behandling samt andre risikofaktorer. Resultaterne fra trombofiliudredningerne gøres op som hyppighed af de enkelte trombofilifaktorer, hvilket sammenlignes med kendte hyppigheder i den danske befolkning eller sammenlignelige populationer.

Resultater: Efter gennemgang af journaler var der 183 patienter med stroke (105 mænd, 78 kvinder), gennemsnitsalder mænd/kvinder 50/47 år, og 91 med transitorisk cerebral iskæmi (TCl) (45 mænd, 46 kvinder), gennemsnitsalder 47/45 år. Median BMI for stroke var 26,2 og 25,3 kg/m² (mænd/kvinder). Risikofaktorer som diabetes mellitus, atrieflimren og tidligere AMI udgjorde kun få %, men ca. 30 % havde forhøjet blodtryk og halvdelen af kvinderne og 2/3 af mændene var rygere/tidligere rygere. En foreløbig gennemgang viser kun relativt få patienter med forekomst af trombofili.

Konklusion: Trombofili synes ikke at være en væsentlig risikofaktor hos disse patienter.

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