



Forskningens dag den 19. april 2012
Abstracts

Program "Forskningens dag" 2012

12.00 - 12.10	Velkomst
12.10 - 13.00	Foredragssession I
13.00 - 13.20	Pause med mulighed for at se posters
13.20 - 14.10	Foredragssession II
14.10 - 14.25	Gæstetaler: Regionsdirektør Bo Johansen, Region Midtjylland "Styrket forskning på regionshospita- lerne - Nyt aftalekompleks mellem Region Midtjylland og Aarhus Universitet"
14.25 - 14.40	Præsentation af forskningspublikation for 2011
14.40 - 15.00	Præmieoverrækkelse og afslutning

Session I. 12.10 - 13.00

1. Ole Kudsk Jensen m.fl., Diagnostisk Center
Pain-intensity in non-specific low back pain versus radiculopathy: Posthoc analyses of baseline data from a randomised controlled trial.
2. Lene Søndergaard Larsen m.fl., Center for Sygeplejeforskning
An ambiguous relationship – a qualitative meta synthesis of hospitalized patients' experience of interaction with fellow patients.
3. Annette Høgh m.fl., Karkirurgisk Afdeling
Use of angiotensin-converting-enzyme inhibitors and cardiovascular outcomes following primary vascular surgery: A nationwide propensity score matched follow-up study.
4. Christian Høyer m.fl., Klinisk Fysiologisk Afdeling
Randomised diagnostic accuracy study of a fully automated portable device for diagnosis of peripheral arterial disease by measurement of toe pressures.
5. Dorthe Dahl Hoffmann m.fl., Vestdansk Center for Rygmarvsskade
Tilbage til arbejde/uddannelse efter en traumatisk rygmarvsskade.

Moderator: Overlæge, lektor, dr.med. Lars Frost, Diagnostisk Center

Session II. 13.20 - 14.10

1. Troels K Hansen m.fl., Diagnostisk Center
Varigheden af kontakten til diabetesambulatorium, risikostratificering og ressourceforbrug for type 2 diabetes patienter henvist fra almen praksis.
2. Helle Zacho m.fl., Klinisk Fysiologisk Afdeling
Den diagnostiske værdi af knoglescintigrafi i en nordisk population uden PSA-screening: Et prospektivt studie af konsekutive patienter med nydiagnosticeret prostatacancer.
3. Mette Herly m.fl., Diagnostisk Center
Patient's global assessment of general health by VAS at baseline predicts ACR/EULAR remission after 3, 6 and 12 month's of efficient treatment in DMARD- and steroid naïve early rheumatoid arthritis patients. The Danish Cimestra-Study.
4. Jes Lindholt m.fl., Forskningssektionen, Karkirurgisk Afdeling
The Scandinavian Propaten® trial – two year results from a randomised clinical controlled multi-centre trial. An Achilles heel exposed?
5. Pernille Endrup Jacobsen m.fl., Regional Specialtandpleje
Enamel disturbances in children prenatally exposed to anti-epileptic drugs.

Moderator: Professor, overlæge, dr.med. Lars Jelstrup Petersen, Klinisk Fysiologisk Afdeling

Hvert oplæg har en varighed af otte minutter, herefter er der afsat to minutter til diskussion.

Foredrag på “Forskningens dag”

SESSION I:

1.	Pain-intensity in non-specific low back pain versus radiculopathy: Posthoc analyses of baseline data from a randomised controlled trial	6
2.	An ambiguous relationship – a qualitative meta synthesis of hospitalized patients’ experience of interaction with fellow patients	7
3.	Use of angiotensin-converting-enzyme inhibitors and cardiovascular outcomes following primary vascular surgery: A nationwide propensity score matched follow-up study	8
4.	Randomised diagnostic accuracy study of a fully automated portable device for diagnosis of peripheral arterial disease by measurement of toe pressures	9
5.	Tilbage til arbejde/uddannelse efter en traumatisk rygmarvsskade	10

SESSION II:

1.	Varigheden af kontakten til diabetesambulatorium, risikostratificering og ressourceforbrug for type 2 diabetes patienter henvist fra almen praksis	11
2.	Den diagnostiske værdi af knoglescintigrafi i en nordisk population uden PSA-screening: Et prospektivt studie af konsekutive patienter med nydiagnosticeret prostatacancer	12
3.	Patient’s global assessment of general health by VAS at baseline predicts ACR/EULAR remission after 3, 6 and 12 month’s of efficient treatment in DMARD- and steroid naïve early rheumatoid arthritis patients. The Danish Cimestra-Study	13
4.	The Scandinavian Propaten® trial – two year results from a randomised clinical controlled multi-centre trial. An Achilles heel exposed?	14
5.	Enamel disturbances in children prenatally exposed to anti-epileptic drugs	15

Øvrige indleverede abstracts til “Forskningens dag”

1.	Tolerability of month long Combination Therapy of Moxifloxacin and Rifamycin in treatment of Prosthetic Joint Infections due to <i>Staphylococcus Aureus</i>	16
2.	Constraint Induced Language Therapy in Sub-Acute Aphasia	17
3.	Clinical routine rehabilitation (CRR) of patients with Chronic Obstructive Pulmonary Disease (COPD) - A follow-up study of completers and non-completers of rehabilitation	18
4.	Vurdering af børns smerter	19
5.	Comparative effectiveness of injection therapies in Lateral Epicondylitis: A systematic review and network meta-analysis of randomized control trials	20

6.	Treatment of Lateral Epicondylitis with injection of platelet-rich plasma or corticosteroid versus saline: A randomised, double blind, placebo-controlled trial	21
7.	Primary Diffuse Mesangioproliferative Glomerulonephritis – Gender and 30 year renal survival	22
8.	In 56 biopsies from Non-Ruptured Tendinopathic Achilles Tendons, the presence of T and B Lymphocytes, Macrophages and NK cells was localized by Immunohistochemistry. The amount of B Lymphocytes and NK Cells correlated to disease duration	23
9.	Cardiac Cycle is a major contributor to variability in size measurements of Abdominal Aortic Aneurysms by ultrasound	24
10.	Inter observer-variation in the evaluation of bone scans in newly diagnosed Prostate Cancer	25
11.	Reference values and correlation with body-composition for measurement of the total Splanchnic Blood Flow	26
12.	Kognitiv mesterlære på børneafdelingen – hvad sker der og hvor lang tid tager det?	27
13.	Endoscopic-assisted treatment of Chronic Exertional Compartmental Syndrome (CECS) in the lower legs and forearms	28
14.	Forbedring af visuel søgen i patient video cases	29
15.	Initiale resultater af den forebyggende kredsløbsundersøgelse af 60, 65, 70 og 75-årige kvinder i Viborg Kommune	30
16.	Experimental induction of Infrarenal Aortic Aneurysms in a large porcine animal model	31
17.	Evaluering af maksimal anbefalet alder på blodprøve inden fremstilling af udstrygningspræparat til differentieltælning	32
18.	Implementering af Assessment of Motor and Process Skills (AMPS)	33
19.	Impact of soluble TWEAK and CD163/TWEAK ratio on long-term cardiovascular mortality in patients with Peripheral Arterial Disease	34
20.	The prognosis of Ruptured Abdominal Aortic Aneurysms in Denmark 1994-2008	35
21.	Korrelation mellem kliniske, genetiske og neurofysiologiske resultater ved Hereditær Sensorisk Motorisk Neuropati i perioden 2000-2009	36
22.	Estimating the Glomerular Filtration Rate using Serum Cystatin C levels in patients with spinal cord injuries	37
23.	Panayiotopoulos Syndrom – en epilepsiform, som er nem at overse. En case serie	38
24.	Predictive value of Serum Progesterone for spontaneous resolution of pregnancies of unknown location (PUL)	39
25.	Årsager til fjernelse af IUD (Intrauterine Contraceptive Device) hos kvinder i almen praksis	40

Foredrag på “Forskningens dag”

SESSION I

1. Pain-intensity in non-specific low back pain versus radiculopathy: Posthoc analyses of baseline data from a randomised controlled trial

Jensen O.K.¹, Nielsen C.V.², Stengaard-Pedersen K.³

¹The Spine Center, Diagnostic Center, Region Hospital Silkeborg,

²Dept. of Clinical Social Medicine and Rehabilitation, Aarhus University and Central Denmark Region,

³Dept. of Rheumatology, Aarhus University Hospital, Denmark

Introduction: Leg pain and pain-intensity have been documented as risk factors for adverse outcome in sick-listed low back pain (LBP) patients. Diffuse hyperalgesia may indicate sensitization of the nociceptive system.

Materials and methods: Baseline data in 326 patients participating in a randomised controlled trial were analysed by multivariate linear regression with the intensity of back+leg pain, back pain and leg pain as outcome. Baseline data comprised both questionnaire data and clinical measures, including range of motion, hyperalgesia as estimated by tender point (TP) examination, and disc degeneration estimated by disc height reductions on plain X-rays.

Results: About one third of the patients had radiculopathy, verified by magnetic resonance imaging, and these patients had more leg pain, not back pain, than the remaining two thirds of the patients with non-specific LBP, of whom about one half had referred pain below the knee.

Overall, back+leg pain-intensity, as well as back pain-intensity, was associated with high disability in daily activities, bodily distress, short school education and the duration of pain. In addition to disability and bodily distress, leg pain-intensity was associated with the presence of radiculopathy and restricted forward-flexion. In patients with non-specific LBP, leg pain-intensity was associated with the reporting of widespread pain during the preceding two weeks.

Back pain-intensity, but not leg pain-intensity, was associated with disc degeneration when adjusted for the number of TPs, which was also associated with back pain-intensity.

Discussion: Different associations were found for back vs. leg pain, but it was confirmed that radiculopathy is characterized by more leg pain and restricted forward-flexion than non-specific LBP.

Conclusion: Pain-intensity was associated with both clinical and psychosocial variables. Back pain-intensity was better explained, when a measure of sensitization of the nociceptive system, i.e. TPs, was included in the analyses.

2. An ambiguous relationship – a qualitative meta-synthesis of hospitalized patients' experience of interaction with fellow patients

Larsen, LS.^{1,2}, Larsen, BH.², Birkelund, R.¹

¹Dept. of Nursing Science, Faculty of Health Sciences, Aarhus University

²Centre of Nursing Science, Viborg

Background: The significance of social interaction is commonly discussed and intensively studied as a substantial concept in the nursing profession. Social research conducted in hospital settings has prioritised to examine interaction between patients and doctors, patients and nurses and patients and relatives over patient-patient interaction. Exploration of patients' dyads during hospitalization from the patient's perspective is rare.

Aim: To provide a clear view of existing knowledge of hospitalized patients' significance to fellow patients.

Methods: Qualitative meta-synthesis inspired by Sandelowski & Barroso's approach. Four scientific articles, two doctoral thesis and one book chapter were included.

Results: The analysis resulted in three core categories: The fellow patient as

1) *an enforced companion*; the interaction with fellow patients was an enforced companionship. Privacy was hard to achieve but even so, patients thought of interaction with fellow patients positively. For some patients interaction was a cause to distress, sadness and hopelessness

2) *an expert on illness and hospital life*; patients shared lived experience about this which was highly valued and appreciated by fellow patients. Too much information from fellow patients might rock patients' confidence and hope for own recovery

3) *a care provider*; the patients' community was characterized by compassion where they either received care from, or provided care to a fellow patient. Interacting with and supporting fellow patients was sometimes depressing and troublesome. Really understanding and caring for fellow patients was painful

Conclusion: The patients' interaction is characterized as ambiguous, because interaction between the patients holds both resources and strains. The patient as a care provider may cause curiosity among nurses especially, as nurses, in general, are perceived as primary caregivers. Nurses need to discuss a change of attitude and change traditional ways of thinking about this.

3. Use of angiotensin-converting-enzyme inhibitors and cardiovascular outcomes following primary vascular surgery: A nationwide propensity score matched follow-up study

Annette Høgh, MD ^{1,2}, Jes S. Lindholt DMSci, PhD, MD¹, Henrik Nielsen, MSc², Leif P. Jensen, Søren P. Johnsen PhD, MD²

¹Department of Vascular Surgery, Regionshospitalet Viborg, Denmark

²Department of Clinical Epidemiology, Aarhus University Hospital, Denmark

Correspondence: Annette Høgh, Department of Vascular Surgery, Heibergs Alle 4, 8800 Viborg, Regionshospitalet Viborg, Denmark. E-mail address: Annette.hoegh@viborg.rm.dk.

Objective: To examine the association between angiotensin-converting-enzyme inhibitors and angiotensin II receptor antagonists (ACE/ATII) use and clinical outcome (death, myocardial infarction, recurrent vascular surgery, stroke and/or major amputation) after primary vascular reconstruction in a population-based propensity score matched follow-up study.

Methods: All patients undergoing primary vascular surgical reconstruction in Denmark between 1996 and 2007 were identified in the Danish Vascular Registry. We obtained data on all filled prescriptions, clinical outcomes and confounding factors by individual-level record linkage to other population-based health care registries.

For each ACE inhibitor user up to five nonusers were identified using propensity score matching followed by Cox-regression to estimate adjusted hazard ratios (Adj. HR). Use of drugs was included as time-dependent variables.

Results: We included 17495 matched patients (4912 ACE inhibitor users and 12583 non-users) with a median follow-up period of 582 days (range 30 to 4379 days). All cause mortality was 20.4% for ACE inhibitor users and 24.9% for non-users (adj.HR 0.88, 95% CI 0.81-0.96). The cumulative risk of myocardial infarction was 6.2% for ACE inhibitor users and 4.7% for non-users (adj.HR 1.20, 95% CI 1.03-1.39). Cumulative risk of recurrent vascular surgery was 24.0% for ACE inhibitor users and 23.1% for non-users (adj.HR 1.21, 95% CI 1.13-1.30). No differences were seen concerning stroke and major amputation.

Conclusion: We found use of ACE inhibitors to be associated with lower all-cause mortality but also an increased long-term risk of recurrent vascular reconstruction and myocardial infarction.

4. Randomised diagnostic accuracy study of a fully automated portable device for diagnosis of peripheral arterial disease by measurement of toe pressures

Høyer C^{1,2}, Sandermann J³, Pavar S¹, Pedersen BH¹, Petersen LJ^{1,2}

¹Department of Clinical Physiology, Viborg Hospital

²Department of Health Science and Technology, Aalborg University

³Department of Vascular Surgery, Viborg Hospital

Aim: Presence of peripheral arterial disease (PAD) is an independent predictor of cardiovascular morbidity and mortality. According to the TASC II guideline, PAD is diagnosed by an ankle brachial index <0.9 or toe brachial index <0.7. Mercury-in-silastic strain gauge pletysmography (SGP) is considered the reference test for segmental blood pressure assessment in Scandinavia. The purpose of the study was to validate a new portable, fully automated photoplethysmographic device (APD) for measurement of toe pressures using SGP as reference test.

Methods: We conducted a double-blinded diagnostic accuracy study in accordance with STARD, GRADE, and Cochrane DTA recommendations. 204 consecutive patients with known or suspected PAD were recruited over period of two months. Patients were randomised to toe pressure measurements by APD (SysToe®, Atys Medical, France) followed by SGP or vice versa. Finally, ankle pressures were measured by SGP. The primary endpoint was diagnosis of PAD on a patient basis. Secondary endpoints were agreement in absolute toe pressures, diagnosis of severe ischemia, time, reproducibility, and patient discomfort.

Results: The two methods showed agreement in diagnostic classification in 186 (91.2%) of the 204 patients based on toe pressures. PAD was diagnosed in 161 (78.9%) and 25 (12.3%) had normal toe pressure indices by both methods. 16 (7.8%) had PAD according to APD only, and two (2.0%) had PAD according to SGP only. Compared to a full SGP examination, the APD yielded a sensitivity of 98.8% and specificity of 61.0% for detecting PAD. Correlation analysis between the two techniques showed an intraclass correlation coefficient of 0.881 (95% CI 0.847-0.909) for right and 0.885 (95% CI 0.851-0.912) for left side toe pressures.

Conclusions: Our data indicate that the APD is a useful, bed-side method for PAD screening. The method is observer-independent and showed a good correlation with SGP even with low toe blood pressures.

5. Tilbage til arbejde/uddannelse efter en traumatisk rygmarsvsskade En follow-up undersøgelse af 160 personer, der pådrog sig en rygmarsvsskade i perioden 2005-2010

Hoffmann D, Madsen E, Johannesen IL

Vestdansk Center for Rygmarsvsskade, Neurologisk Afd., Regionshospitalet Viborg

Baggrund og formål: Hvert år får omkring 60 personer en traumatisk rygmarsvsskade i Danmark. Formålet med undersøgelsen var at afdække, hvor mange af de rygmarsvsskadede der kommer tilbage til arbejde eller uddannelse, og hvor lang tid der går.

Metode: Undersøgelsen blev gennemført som et historisk follow-up studie med brug af retrospektive data fra de to danske spinalcentres databaser samt postomdelte spørgeskemaer. Alle traumatisk betingede rygmarsvsskadede i alderen 18-64 med primær indlæggelse i perioden 1.7.2005 - 30.6.2010 blev inkluderet.

Resultater: Der blev udsendt 219 spørgeskemaer, og 160 blev besvaret (73 %). Respondenternes gennemsnitsalder var 42 år. Mand/kvinde ratio 5:1. Ligelig fordeling mellem para- og tetraplegi. Hyppigste årsag til ulykken var transport og fald. På ulykkestidspunktet var 70 % af respondenterne i arbejde og 11 % var under uddannelse. På undersøgelsestidspunktet var 32 % i arbejde og 8 % var under uddannelse. Der gik i gennemsnit ét år, før de påbegyndte arbejde/uddannelse. Af dem, der var i arbejde på ulykkestidspunktet, kom 42 % i arbejde igen efter ulykken og 5 % påbegyndte en uddannelse. De fleste af dem, der kom i arbejde, var yngre, havde et højere uddannelsesniveau og mindre alvorlige skader. Af dem, der kom tilbage til arbejde, vendte 69 % tilbage til deres tidligere arbejdsplads og her gik kun halvt så lang tid.

Diskussion/konklusion: Undersøgelsen viser, at der med en opfølgingsperiode på op til 5 år var en beskæftigelsesandel blandt rygmarsvsskadede i Danmark, der ligger i underkanten af, hvad den gør i andre vestlige lande. Dette understreger vigtigheden af, at spørgsmålet om fremtidig arbejdstilknytning eller uddannelse får en mere central plads i rehabiliteringen.

Foredrag på "Forskningsdag"

SESSION II

1. Varigheden af kontakten til diabetesambulatorium, risikostratificering og ressourceforbrug for type 2 diabetes patienter henvist fra almen praksis

Hansen TK, Ørskov C, Brockstedt H, Hornum H, Hansen KW,

Diagnostisk Center, Regionshospitalet Silkeborg

Formål: At undersøge varigheden af kontakten til diabetesambulatoriet for type 2 diabetes patienter henvist fra almen praksis, samt at foretage risikostratificering ved tilbagehenvielse. Desuden beregning af ressourceforbruget i ambulatoriet.

Metode: Retrospektivt studie af 154 patienter med diabetesvarighed >2 år, henvist til diabetesambulatoriet i perioden 2004-2009. Inklusionskriterier: 1) Diabeteskontrol i de seneste to år før henvisningen er udelukkende varetaget i primærsektoren. 2) Follow-up tid mindst 12 måneder eller til afslutning fra ambulatoriet. Ved afslutning til almen praksis blev der udført risikostratificering efter Sundhedsstyrelsens model. Desuden er kontaktens varighed samt behandlingsudgifter efter DRG-takst opgjort.

Resultater: Hovedparten af patienterne blev ved afslutningen stratificeret til højrisiko-niveau uden forskel i stratafordelingen mellem patienter fulgt i ≤12 mdr. eller >12 mdr. før afslutning. Efter gennemsnitligt 6 ambulatoriebesøg og en mediantid på 10 måneder (spændvidde 1-64) var 105 patienter returneret til diabeteskontrol i almen praksis, mens 20 % fortsat var tilknyttet ambulatoriet efter 6 år. Halvdelen var afsluttet efter 18 måneder. Ud fra DRG-ydelsestakst var godtgørelsen gennemsnitligt 1763 euro pr. afsluttet patient.

Konklusion: Risikostratificering er ikke et brugbart værktøj til at forudsige varigheden af kontakten til diabetesambulatoriet, muligvis fordi individuelle faktorer, der ikke indgår i stratificeringen har været afgørende for, hvornår patienten blev afsluttet. Der mangler strategier til at afkorte varigheden af kontakten til diabetesambulatoriet. De henviste patienter har høj grad af diabetiske komplikationer, også ved afslutning til videre kontrol i almen praksis, hvilket understreger vigtigheden af kvalificeret opfølgning, samt en effektiv kommunikation mellem sektorerne for at nedsætte behovet for genhenvielse til specialiseret behandlingsintensivering.

2. Den diagnostiske værdi af knoglescintigrafi i en nordisk population uden PSA-screening: Et prospektivt studie af konsekutive patienter med nydiagnosticeret prostatacancer

Zacho HD¹, Barsi T², Mortensen JC³, Mortensen MK⁴, Bertelsen H⁵, Josephsen N⁶, Petersen LJ^{1,7}

¹Klinisk Fysiologisk Afd., Regionshospitalet Viborg

²Urologisk Afsnit., Regionshospitalet Viborg

³Nuklear Medicinsk Afd., Regionshospitalet Herning

⁴Urologisk Afd., Regionshospitalet Holstebro

⁵Klinisk Fysiologisk Afd., Regionshospitalet Randers

⁶Urologisk Afd. Regionshospitalet Randers

⁷Institut for Medicin og Sundhedsteknologi, Aalborg Universitet

Formål: Den danske prostatabetækning levner plads til at undlade knoglescintigrafi i den initiale udredning af prostatacancer hos patienter med lavmalign tumor; dette effektueres sjældent i praksis. Der foreligger imidlertid ingen prospektive undersøgelser af værdien af knoglescintigrafi i en nordisk population. Knoglescintigrafi har en høj sensitivitet, men moderat specificitet for detektion af knoglemetastaser hos patienter med prostatacancer. De eksisterende retrospektive studier er uden MR/CT verifikation ved inkonklusive scintigrafier.

Materiale og metode: I alt 635 konsekutive patienter med nydiagnosticeret prostatacancer fra tre urologiske afdelinger i Region Midt fik lavet knoglescintigrafi i perioden 1. marts 2008 til 1. oktober 2009. Knoglescintigrafi samt supplerende billeddiagnostik (MR/CT) blev gennemgået mhp. tilstedeværelse af knoglemetastaser. Knoglescintigrafisvarerne blev inddelt i 4 kategorier (1: Benigne forandringer/normal, 2: Kan repræsentere både benign og malign sygdom; 3: Overvejende sandsynligt metastaser og 4: Multiple metastaser). Et endelig billeddiagnostisk facit blev udregnet ved brug af supplerende MR/CT.

Resultater: Proportionen af grad 3+4 knoglescintigrafier var 78/635 (12 %). I alt 154/635 (24 %) fik foretaget supplerende billeddiagnostik, heraf 101/167 med grad 2 knoglescintigrafi. Det billeddiagnostiske facit påviste knoglemetastaser hos 87/635 (14%). Der kunne ikke påvises knoglemetastaser hos følgende grupper: 1) PSA < 10 ng/mL uanset Gleason og T-score (n=213) samt 2) PSA < 20 ng/mL og Gleason < 8 og T-score < T3 (n=97). En valid algoritme for verifikation af knoglemetastaser kunne ikke etableres.

Diskussion: Vores data viser at patienter med lav og intermediær risiko kan undlade knoglescintigrafi ved stadielindeling og understøtter således tidligere retrospektive studier. I denne uselekerede population vil 310/635 opfylde kriterierne for at undlade knoglescintigrafi i den initiale udredning af prostata cancer.

3. Patient's global assessment of general health by VAS at baseline predicts ACR/EULAR remission after 3, 6 and 12 month's of efficient treatment in DMARD- and steroid naïve early rheumatoid arthritis patients. The Danish Cimestra-Study

M. Herly^{1,*}, K. Stengaard-Pedersen², P. Vestergaard³, J. Pødenphant⁴, M. Østergaard⁴, P. Junker⁵, M. L. Hetland⁴, K. Hørslev-Petersen⁵, T. Ellingsen¹

¹Department of Rheumatology, Diagnostic Center, Region Hospital Silkeborg, Silkeborg

²Department of Rheumatology

³Department of Endocrinology, Aarhus University Hospital, Aarhus

⁴Department of Rheumatology, Copenhagen University Hospital, Copenhagen

⁵Department of Rheumatology, University of Southern Denmark, Odense, Denmark

Background: At the time of diagnosis, easy-to-use and cost-effective predictors of remission are needed in rheumatoid arthritis (RA) to improve patient care.

Objectives: During one year of efficient treatment aiming for remission (1) in 160 DMARD- and steroid naïve early RA patients we investigated at baseline how total D-vitamin plasma levels (Dtot), ACPA-status, IgM-RF, CRP, total Sharp score at baseline (TSSO), HAQ, patient's general health assessment (VAS), DAS28(CRP) at baseline, number of swollen joints (NSJ) and number of tender joints (NTJ), never smoking, age and gender could predict remission, defined by the new ACR/EULAR remission criterias (2) or DAS28 < 2.6.

Methods: In a multivariate logistic regression model, using backward stepwise selection, baseline values of Dtot, ACPA-status, IgM-RF, CRP, TSSO, HAQ, patient's general health assessment VAS, DAS28, NSJ and NTJ, age, never smoking and gender, were evaluated as possible predictors of ACR/EULAR remission and DAS28 < 2,6 after 3, 6 and 12 months of treatment, $p < 0.05$ was considered significant.

Results: At 3 months: ACR/EULAR remission was predicted by patient's general health assessment ($p < 0.001$). DAS28 < 2.6 was predicted by patient's general health assessment ($p = 0.024$), ACPA ($p = 0.08$), IgM-RF ($p = 0.028$), gender ($p = 0.028$), DAS28 baseline ($p < 0.001$) and NTJ ($p = 0.002$).

At 6 months: ACR/EULAR remission was predicted by patient's general health assessment ($p = 0.036$) and DAS28 baseline ($p = 0.023$). DAS28 < 2.6 was predicted by DAS28 baseline ($p < 0.001$) and NSJ ($p = 0.036$).

At 12 months: ACR/EULAR remission was predicted by patient's general health assessment ($p = 0.025$) and TSSO ($p = 0.048$). DAS28 < 2.6 was predicted by NTJ ($p = 0.014$).

Conclusions: In DMARD- and steroid naïve early RA patients, the baseline patient's general health assessment predicted ACR/EULAR remission at 3, 6 and 12 month in a multivariate logistic regression analysis. DAS28, NTJ, ACPA, IgM-RF, gender, TSSO and NSJ predicted remission at 3, 6 or 12 months with less consistency. Dtot did not predict treatment response.

Disclosure of Interest: None Declared.

4. The Scandinavian Propaten® trial – two year results from a randomised clinical controlled multi-centre trial. An Achilles heel exposed?

Lindholt JS⁽¹⁾, Gottschalksen B⁽²⁾, Johannesen N⁽³⁾, Jepsen J⁽⁴⁾, Ravn H⁽⁵⁾, Christensen ED⁽⁶⁾, Viddal B⁽⁷⁾, Flørness T⁽⁸⁾, Petersen G⁽⁹⁾, Christensen M⁽¹⁰⁾, Carstensen M⁽¹¹⁾, Grøndal N⁽¹⁾, Fasting H⁽¹⁾.

¹Vascular Research Unit, Viborg Hospital, Denmark

²Department of Vascular Surgery, Slagelse Hospital, Denmark

³Department of Vascular Surgery, Aalborg Hospital, University Hospital of Aarhus, Denmark

⁴Department of Vascular Surgery, Kolding Hospital, Denmark

⁵Department of Vascular Surgery, Department of Vascular Surgery, Eksjö District Hospital, Sweden

⁶Department of Vascular Surgery, Aabenraa Hospital, Denmark

⁷Department of Vascular Surgery, Stavanger University Hospital, Norway

⁸Department of Vascular Surgery, University Hospital of Oslo, Aker, Norway

⁹Department of Vascular Surgery, Haukeland University Hospital, Norway

¹⁰Department of Vascular Surgery, Gentofte Hospital, Denmark

¹¹Department of Vascular Surgery, Rigshospitalet, Denmark

Objective: To compare two-year patencies of Propaten® grafts with those of ordinary polytetrafluorethylene PTFE grafts in a randomised multi-centre study.

Materials and Methods: Eleven Scandinavian centres enrolled 569 patients with chronic lower limb ischemia scheduled to undergo femoro-femoral (fem-fem) bypass or femoro-popliteal bypass (fem-pop). The patients were randomised 1:1 and stratified by centre. Patency was assessed by duplex ultrasound scanning, and 555 (96%) completed the study with adequate follow up.

Cox's regression analysis was used and adjusted for the type of bypass to determine the risk ratio for graft failure after one year.

Results: In all, 454 grafts remained primarily patent during the first two years. Of the 278 implanted crude PTFE grafts, 212 (76%) remained primarily patent, as compared to 226 out of 273 (83%) implanted Propaten® grafts (HR=0.67(0.47;0.98, p=0.037). Two year primary patency of Propaten grafts used for femoropopliteal bypass was overall 75% and in critical ischemia 74%, compared to 63% and 54%, respectively, of crude PTFE grafts. Consequently, propaten femoropopliteal bypasses were significantly associated with a halving of the risk of losing primary patency (HR=0.54 (0.32;0.92), p=0.024), and in cases with critical ischemia, the propaten graft was also associated with a halving of the risk of losing primary patency (HR=0.47(0.27;0.82, p=0.027)). Concerning femorofemoral cross over bypasses no significant difference was observed concerning primary patency after two years (HR=0.94 (0.47;1.87), p=0.85)). In cases with critical ischemia, use of Propaten® grafts halved the risk of losing primary patency (HR=0.47 (0.20;1.13), p=0.082)). However, use of Propaten® grafts for intermittent claudication was associated with a significant 3.8 times higher risk of losing primary patency.

Conclusion: The promising results concerning first year primary patency were sustained during the second year. After two years, the propaten graft significantly reduces the risk of losing primary patency by 33% overall, 40% in fempops, and 50% in critical ischemia. However, the overall results were not very robust due to the unexpected weak overall benefit in femoro-femoral cross over bypasses caused by a very surprising finding of increased risk in cases treated for intermittent claudication. A large validation work has begun, and a certain configuration of the graft is suspected to be the cause.

5. Enamel disturbances in children prenatally exposed to anti-epileptic drugs

Ph.d. student Pernille Endrup Jacobsen¹, Professor Tine Brink Henriksen³, Professor Dorte Haubek², Professor John Østergaard⁴

¹Regional Special Dentistry, Regional Hospital Viborg

²Dept. of Dentistry, Aarhus University

³Dept. of Pediatric, Skejby, Aarhus University

⁴Center for Rare Diseases, Skejby, Aarhus University

Aim: Genetic as well as exogenous factors have been shown to be associated with enamel defects. Previous studies have suggested that prenatal exposure to drugs, such as dioxin or tetracycline, can induce enamel abnormalities. The aim of the present study is to elucidate the association between prenatal exposure to antiepileptic drugs and the development of enamel defects.

Methods: The study is conducted as a follow up study based on information from the Birth Cohort of Aarhus and the Dept. of Neurology, Viborg Region Hospital. Information on the mother's medical intake was confirmed by information from the Prescription database. Information on the mother's health condition, medication use, alcohol, or smoking habits during the pregnancy have been registered previously in The Aarhus Birth Cohort.

Material: A total of 38 exposed children and 128 non-exposed children, 6-10 years of age, were enrolled in the study. The outcome measurements are hypomineralization and hypoplasia registered in the permanent as well as the primary teeth. A questionnaire survey of the medical condition, lifestyle habits and breast feeding habits of the mother under the pregnancy were conducted.

Results: Preliminary results show that the exposed children have an increased prevalence of hypoplasia (11% vs. 4%), diffuse opacities (18% vs. 7%) and white opacities (18% vs. 10%), in the primary dentition. In the permanent dentition, we found an increased risk in the group with more than 3 white opacities (34% vs. 12%)
The exact odds ratio are not yet available, but will be presented at the day of the presentation.

Conclusion: Preliminary results show an increased risk of developing white opacities, diffuse opacities and hypoplasia in the primary teeth in children exposed to antiepileptic drugs prenatally.

Øvrige indleverede abstracts til “Forskningens dag”

1. Tolerability of month long combination therapy of moxifloxacin and rifamycin in treatment of prosthetic joint infections due to *Staphylococcus aureus*

Leitz C¹, Jöhnk M.L¹, Prag J¹, Søndergaard J²

¹Department of Clinical Microbiology and

²Orthopedics, Viborg Hospital, Heibergs Allé 4, DK- 8800 Viborg, Denmark

Key words: long-term treatment, tolerability, moxifloxacin, rifamycin, prosthetic joint infection, *Staphylococcus aureus*

Objective: To describe tolerability of long-term combination therapy of moxifloxacin and rifamycin in patients with prosthetic joint infections due to *Staphylococcus aureus* (*S.aureus*). The MICs of moxifloxacin are 8-10 times lower than these of ciprofloxacin. Therefore combination therapy with moxifloxacin and rifamycin appears promising for the treatment of prosthetic joint infections due to *S. aureus*.

Material and Methods: A retrospective study, analysing clinical data from 12 patients admitted to Department of Orthopedics, Viborg Hospital (2005- 2011) with a prosthetic joint infection due to *S. aureus* and who received long-term treatment of moxifloxacin and rifamycin. Adverse effects, both paraclinical and subjective symptoms, were recorded.

Results: The median age of the 12 patients included was 71 years (range from 54 to 87 years). Five were males. Five patients had a two-stage prosthetic exchange, six had debridement with prosthesis retention and in one case the prosthesis was sacrificed, and the patient had a permanent Girdlestone status. Most of the patients had comorbidities related to the cardiovascular system.

No serious adverse reactions were observed in 10 of the 12 patients. Two of the 12 patients discontinued their treatment due to anaemia and abnormal liver enzymes. In both cases rifamycin was discontinued and they continued moxifloxacin alone without further problems. The adverse reactions disappeared within a short period of time.

Conclusion: We found that long-term combination therapy of moxifloxacin and rifamycin was well tolerated even in older patients with comorbidities.

Although our data are limited by small number, the results are encouraging and should be confirmed in further studies.

2. Constraint Induced Language Therapy in Sub-Acute Aphasia

Kristensen, L. F.; Steensig, I.; Pedersen, A.D.; Pedersen, A.R.; Nielsen, J.F.

Hammel Neurorehabilitation and Research Center, DK

Background: Constraint induced language therapy (CILT) is an intensive, short term therapy founded on the principles of prevention of compensatory communication (constraint), shaping (induced), and massed practise. Previous research indicates that CILT can lead to substantial and lasting improvements in language functions in chronic aphasia. Recovery after stroke is most profound in the first months after insult, but the applicability and the effect of CILT in the sub-acute phase of recovery have only been sparsely investigated.

Aim: The aim of the current study is to investigate the applicability and the effect of CILT in stroke patients in the sub acute phase of recovery (< 6 months post onset) in the frame of an inpatient multidisciplinary neurorehabilitation program.

Method: *Participants:* Stroke patients with sub acute aphasia. *Treatment:* Two consecutive periods: A and B; Period A: Two weeks of standard rehabilitation including non-specific speech and language therapy. Period B: Two weeks with 30 hours of CILT in ten weekdays, three hours a day. CILT is conducted by two experienced speech and language therapists (SLTs) and performed in small groups with two to three participants.

Language functions are assessed by other SLTs with standardized language tests (WAB and MAST). The amount and quality of communication are assessed by relatives and staff with a standardized questionnaire (CETI). All assessments are carried out at four time points: pre-period A, pre- and post-period B, and at three-month follow-up. Estimation of depression and neuropsychological assessment is performed immediately before CILT.

Results: Data from 11 stroke patients will be presented.

3. Clinical Routine Rehabilitation (CRR) of patients with Chronic Obstructive Pulmonary Disease (COPD) - A follow-up study of completers and non-completers of rehabilitation

Bjørnshave Noe B¹, Korsgaard J², Jensen C³, Vinther Nielsen C³

¹Institute of Public Health and Clinical Medicine, Aarhus University and Department of Spinal Cord Injury, Viborg Regional Hospital

²Moelholm Private Hospital Vejle

³Centre of Public Health and Quality, Marselisborg Centre, Central Denmark Region and Department of Social Medicine and Rehabilitation, Institute of Public Health, Aarhus University

The effect of COPD-rehabilitation has been amply documented in randomized controlled trials (RCTs). A Cochrane review and international guidelines recommend rehabilitation as an important part of the care for COPD patients. Danish COPD-rehabilitation programs have been implemented based on these recommendations. Knowledge of completion rates and effects are important, and therefore **we aimed** to characterize a COPD-cohort treated at Horsens Regional Hospital and to study changes in rehabilitation outcomes; walk-distance (6MWD), quality of life (QoL), and dyspnoea (MRC score). We hypothesized that completers of CRR would improve these outcomes and that their basic characteristics would predict completion.

Materials and methods: Participants were in- and outpatients with COPD. Changes in MRC, 6MWD, and QoL (SF36) from baseline to follow-up at 3, 6, and 12 months were compared between completers and non-completers.

Result: From the source population of 521 patients, 148 participated in follow-up. The patients were in their late sixties, short educated, half of the patients current smokers approx. half of the patients tested positive for depression. More than 80 had at one or more co-morbidities with no differences between completers of CRR and non-completers and their characteristics did not predict completion. Completers did not improve in 6MWD from baseline to the end of rehabilitation and had declined at the 12-month follow-up. MRC and QoL did not improve. There were no significant differences among completers and non-completers. Completers' attitudes toward rehabilitation were positive: 75% felt better or much better after rehabilitation.

Conclusion: Completers of CRR did not improve in core rehabilitation outcomes. The explanations are that completers in CRR differ from the study-populations in RCTs. The CRR offered may not match the RCTs in terms of the quality of its contents and methods. More knowledge is needed on the effects of CRR targeting broad COPD populations.

4. Vurdering af børns smerter

Eg, M.¹, Jensen, L.B. udviklingssygeplejerske², Thorsteinsson, K. klinisk oversygeplejerske³, Andsager, A. kvalitets- og udviklingssygeplejerske⁴

¹Børneafdelingen, Regionshospitalet Viborg, Hospitalsenhed Midt

²Børneafdelingen, Aalborg Universitetshospital

³Børneafdelingen, Hvidovre Hospital

⁴Børneafdelingen, Sygehus Sønderjylland

Vejledning/metodebistand: Annette de Thurah, adjunkt, MPH, ph.d. Institut for Folkesundhed, Aarhus Universitet

Beskrivelse af projektet: Ubehandlet smerte kan have en skadelig effekt på børn og er samtidig noget af det, børn frygter mest under en indlæggelse. Hvis smerter ikke opdages og behandles, kan det forlænge indlæggelsestiden. En præcis og veldokumenteret smertevurdering er en forudsætning for en effektiv smertebehandling.

Ved gennemgang af landets børnesmerteinstrukser i 2009 viste der sig stor variation i, hvilke smertescoringsredskaber der anvendtes, og med hvilken systematik de anvendtes. Det viste sig, at sundhedspersonalet var inkonsistente i vurderingen og behandlingen af smerter, og der rapporteres stadig, at børn oplever smerte, som ikke bliver opdaget under indlæggelse på børneafdelinger.

En arbejdsgruppe bestående af fire sygeplejersker, der var repræsenteret nationalt, blev udpeget til at udarbejde en klinisk retningslinje, hvis formål var:

- at kunne anbefale hvilke smertescoringsredskaber, der bør anvendes i daglig klinisk praksis med henblik på at opnå den mest akkurate og præcise smertevurdering af hospitalsindlagte børn (28 dage til 18 år).

Metode: Der er søgt i følgende relevante elektroniske databaser: Pub Med, EMBASE, CINAHL, Psycinfo samt Cochrane) for afdækning af, hvilket smertescoringsredskab der mest validt og reliabelt vurderer og evaluerer smerter hos indlagte børn. Der fremkom 781 artikler. Efter sortering og ud fra Bland & Altman analyse fremkom 8 egnede studier, som udgør baggrund for anbefalingerne.

Resultat: Der er udarbejdet en klinisk retningslinje "Smertevurdering hos indlagte børn (28 dage – 18 år)", som indsendes til bedømmelse ved Center for Kliniske Retningslinjer – Nationalt Clearinghouse for Sygepleje i marts 2012. Resultaterne vil blive fremlagt på Forskningens Dag.

5. Comparative effectiveness of injection therapies in Lateral Epicondylitis: A systematic review and network meta-analysis of randomized control trials

T. Krogh¹, E. M. Bartels², T. Ellingsen¹, K. Stengaard-Pedersen³, R. Buchbinder⁴, U. Fredberg¹, H. Bliddal², R. Christensen²

¹Diagnostic Center, Regional Hospital Silkeborg, Silkeborg

²The Parker Institute, Musculoskeletal Statistics Unit, Copenhagen University Hospital, Frederiksberg, Copenhagen

³Dep. of Rheumatology, Aarhus University Hospital, Aarhus, Denmark

⁴Monash Department of Clinical Epidemiology, Cabrini Hospital, Malvern, Australia

Objective: To assess the comparative effectiveness of the increasing number of different injection therapies used for pain reduction in lateral epicondylitis (tennis elbow) using a systematic review and network meta-analysis.

Methods. Structured literature searches were conducted. Selected studies were randomized controlled trials comparing different injection therapies and/or placebo injections. Risk of bias was assessed in each trial. Outcome measures were change in pain intensity and adverse events. Network (random effects) meta-analysis was applied to combine direct and indirect evidence within and across trial data. Following the arm-based network meta-analysis standardized mean differences (SMDs) were used as the effect size based on differences between means divided by the pooled standard deviation.

Results: Seventeen trials (1381 patients) allocating individuals to injection with eight different treatments, glucocorticoid, botulinum toxin, platelet-rich plasma, autologous blood, hyaluronic acid, prolotherapy, polidocanol, glycosaminoglycan polysulfate, and/or placebo, fulfilled the inclusion criteria. Pooled results showed that glucocorticoid injection was no more effective than placebo with respect to improvement in pain (SMD -0.04 [95% CI -0.45 to 0.35]); Botulinum toxin was statistically significant but clinically only marginally more effective than placebo (-0.50 [-0.91 to -0.08]); whereas autologous blood (-1.43 [-2.15 to -0.71]) and platelet-rich plasma (-1.13 [-1.77 to -0.49]) were both clearly more efficacious than placebo. Neither polidocanol (0.39 [-0.42 to 1.20]) nor glycosaminoglycan polysulfate (-0.32 [-1.02 to 0.38]) were found to be superior to placebo, while prolotherapy (-2.71 [-4.60 to -0.82]) and hyaluronic acid (-5.58 [-6.35 to -4.82]) were both much more efficacious than placebo.

Conclusion: Our study found that most trials that have assessed the value of injection therapy for lateral epicondylitis are at high risk of bias and that their results therefore need to be interpreted with caution.

6. Treatment of Lateral Epicondylitis with injection of platelet-rich plasma or corticosteroid versus saline: A randomised, double blind, placebo-controlled trial

T. Krogh¹, U. Fredberg¹, K. Stengaard-Pedersen², R. Christensen³, T. Ellingsen¹

¹Diagnostic Center, Regional Hospital Silkeborg, Silkeborg

²Dep. of Rheumatology, Aarhus University Hospital, Aarhus

³Musculoskeletal Statistics Unit, The Parker Institute, University Hospital at Frederiksberg, Copenhagen, Denmark

Objectives: To examine whether one injection with Platelet-rich plasma (PRP) is more effective than saline and corticosteroid (CS) in reducing pain in adults with lateral epicondylitis (LE).

Methods: A block randomized, double-blind, placebo-controlled trial with primary outcome assessed at 3 months, and with a 12 months follow-up, conducted between January 2009, and June 2011. Patients who did not achieve a satisfying treatment response (assessment made by patient and doctor) at 3 month had the option to discontinue the study and receive other treatment. In total, 60 patients with chronic LE were randomized (1:1:1) to receive either a blinded injection of PRP, saline or CS. The primary outcome was change in pain compared to baseline using the Patient Rated Tennis Elbow Evaluation (PRTEE) questionnaire at 3 months. Secondary endpoints were all assessed at 1 month, plus ultrasonographic changes in tendon thickness and color doppler activity at 3 months.

Results: The 60 enrolled patients in the intention to treat population had an average PRTEE pain score at baseline of 26.8 (SD 7.6). All randomized patients completed the study. At endpoint 3 months from baseline pain reduction was observed in all three groups, with no statistical significant difference between the groups. CS vs. saline -3.76 (95% CI -9.94 to 2.42), PRP vs. saline -2.64 (95% CI -8.80 to 3.52) and CS vs. PRP -1.12 (95% CI -7.23 to 4.99). However, at one month CS reduced pain more efficiently than both saline and PRP. The mean difference at one month between CS and saline was -8.11 (95% CI -14.29 to -1.93), between CS and PRP -9.27 (95% CI -15.38 to -3.16). CS was more efficient than PRP and saline in reducing both color doppler activity and tendon thickness at three months. Only 16 of 60 patients completed the entire 12 months follow-up. The huge attrition rate was due to lack of treatment efficacy.

Conclusions: This RCT showed no superiority of either PRP or CS compared to saline in pain reduction in LE at primary endpoint. However, anticipating immediate relief, CS had a short term pain reducing effect at one month in contrast to the other therapies. At 6 and 12 months the attrition rates in all treatment arms were too high for any meaningful conclusions to be made.

7. Primary Diffuse Mesangioproliferative Glomerulonephritis – Gender and 30 year Renal Survival

Mette Axelsen^{1,2}, Robert Smith Pedersen² and Torkell Ellingsen^{1,3}

¹Institute of Public Health, Aarhus University

²Department of Internal Medicine, Ribe County Hospital

³Diagnostic Center, Regionhospital Silkeborg

Aims: to describe the natural history of primary diffuse mesangioproliferative glomerulonephritis (MesP) and the relation between renal survival and baseline characteristics at the time of renal biopsy.

Material: MesP patients (n=140) diagnosed by renal biopsies performed between 1967 and 2006. Renal death was defined as patient death or need for dialysis/transplantation.

Methods: Baseline factors influencing renal survival using multivariate Cox regression analysis.

Results: Renal survival at 5, 10, 20 and 30 years was 87.1, 78.4, 58.6 and 49.9%. Female survival after 30 years was significantly better than male (70% vs. 40%, p=0.049). Multivariate analysis, adjusted for age, s-creatinine and nephrotic syndrome (NS) was performed for each sex individually. Increase in s-creatinine was associated with a hazard risk (HR) of 1.88 (p<0.001) in women and 1.18 (p<0.001) in men. Older age was associated with a HR of 1.06 (p<0.001) in women and 1.05 (p<0.001) in men. NS had a poorer prognosis in men (HR 2.27, p=0.02), but not in women (HR 0.51, p=0.32).

Conclusion: Increasing age and s-creatinine are adversely associated with renal prognosis. Renal prognosis was better for women after 30 years, and the detrimental effect of azotaemia was greater; nephrotic syndrome resulted in a poorer prognosis in men. This suggests that the disease course and prognosis is gender dependent.

8. In 56 biopsies from Non-Ruptured Tendinopathic Achilles Tendons, the presence of T and B Lymphocytes, Macrophages and NK cells was localized by Immunohistochemistry. The amount of B Lymphocytes and NK Cells correlated to disease duration

M. S. Kragstnæs^{1,*}, U. Fredberg¹, K. Stribolt², S. G. Kjær¹, K. Bendix², T. Ellingsen¹

¹Diagnostic Center, Regional Hospital Silkeborg

²University Institute of Pathology, Aarhus University Hospital, Aarhus, Denmark

Background: The etiology of Achilles tendinopathy still remains unclear. Limited data exists on whether immunocompetent cells are present in the tendon.

Objectives: To evaluate the presence of T and B lymphocytes, NK cells and macrophages in chronic Achilles tendinopathy using immunohistochemistry and unbiased stereological technique for quantification. Further, we wanted to correlate the amount of each cell type to disease duration as well as tendon thickness and vascularity evaluated by ultrasound immediately before biopsy.

Methods: 56 non-ruptured Achilles tendons from 25 women and 31 men with chronic tendinopathy were examined with Doppler ultrasound regarding tendon thickness and vascularity. 17 patients had received local steroid injection or other anti-inflammatory treatment within 6 months before the examination. From all tendons, a biopsy was obtained and stained with hematoxylin/eosin, Van Gieson, toluidin blue, Pearls Blue and NaSDCl in addition to the following immunohistochemical markers: CD2, CD3, CD4, CD7, CD8, CD20, CD34, CD56, CD68(KP1), CD68(PG-M1) and Granzyme-B. The area fraction count (AFC) of positive cells in each sample was determined by quantifying and calibrating the area fraction of positive cells to a standard area in 4 mm thick slides using unbiased stereological techniques. The Mann-Whitney rank sum test and the Spearman correlation test was used ($p < 0.05$ was considered significant).

Results: The median age of the patients was 50 years (range 33-69) and the median disease duration was 14 months (range 4-360). In 56 Achilles tendon biopsies, we found presence of CD2+ cells in 44 (79%), CD3+ cells in 49 (88%), CD4+ cells in 47 (84%), CD7+ cells in 38 (68%), CD8+ cells in 32 (57%), CD20+ cells in 10 (18%), CD34+ cells in 54 (96%), CD56+ cells in 31 (55%), CD68KP1+ cells in 54 (96%), CD68PG-M1+ cells in 49 (88%), Granzyme-B+ cells in 4 (7%), iron positive cells in 13 (23%) and NaSDCl positive cells in 45 (80%).

The T lymphocyte AFC correlated positively to

A: B lymphocyte AFC (CD20—CD2, CD4, CD7; $p < 0.01$, r -value(0.34-0.44)).

B: Macrophage AFC (CD68—CD2, CD3, CD4, CD7, CD8; $p < 0.01$, r -value(0.33-0.43)) and the presence of haemosiderophages (iron—CD2, CD3, CD4, CD7; $p < 0.02$, r -value(0.30-0.38)).

C: NK cell AFC (CD56—CD2, CD7, CD8; $p < 0.01$, r -value(0.33-0.38)).

Disease duration correlated to B lymphocyte (CD20) AFC ($p = 0.02$, r -value=0.31) and NK cell (CD56) AFC ($p = 0.01$, r -value=0.35). In addition, both B lymphocyte and NK cell AFC were significant higher in patients with a disease duration of more than 14 months compared to patients with a shorter disease duration ($p < 0.04$). Disease duration did not correlate to either tendon thickness ($p = 0.70$, r -value=-0.07) or Doppler vascularity ($p = 0.13$, r -value=-0.22).

No correlation was found between tendon thickness, Doppler vascularity and any AFC.

Conclusions: In 56 biopsies from non-ruptured chronic tendinopathic Achilles tendons, we found a combined presence of macrophages, T and B lymphocytes and NK cells with no signs of granulocytic cellular infiltrate. Longer disease duration was associated with higher area fraction count of B lymphocytes and NK cells. These findings support the theory of chronic tendinopathy being driven by an immunologic process.

9. Cardiac Cycle is a Major Contributor to Variability in Size Measurements of Abdominal Aortic Aneurysms by Ultrasound

Grøndal N, Bramsen MB, Thomsen MD, Rasmussen CB, Lindholt JS

Regional Hospital Viborg, Department of Vascular Surgery

Aim: The objective of this study was to evaluate the impact of the cardiac cycle on ultrasound measurements of abdominal aortic aneurysm (AAA) diameters.

Methods: In total, 603 AAAs detected by screening were investigated with respect to the maximal systolic- and diastolic anterior-posterior aortic diameters during the cardiac cycle using recorded ultrasound video sequences.

Results: On average, the systolic AAA diameter was 41.60 mm, and the diastolic AAA diameter was 39.63 mm with a paired mean difference at 1.94 mm ($p < 0.0001$). No association between aneurysmal size or the difference in systolic and diastolic size was noted.

The mean difference and variability between two observers, one measuring during peak-systole and the other measuring during end-diastole, was 2.65 mm and 2.21 mm, respectively, as compared to 0.86 mm and 1.52, respectively, when both were measured during the peak of systole. The intraobserver variability was 0.94 mm during systole, 1.18 mm during diastole and 1.94 mm when systole and diastole measurements were combined.

Conclusion: The lack of a standardised measurement of the AAA diameter during the cardiac cycle is a potential major contributor to the variability in ultrasonography measurements.

10. Inter observer-variation in the evaluation of bone scans in newly diagnosed prostate cancer

Zacho HD¹, Mortensen JC², Bertelsen H³, Petersen LJ^{1,4}

¹Dept of Clinical Physiology, Viborg Regional Hospital

²Dept. of Nuclear Medicine, Herning Regional Hospital

³Dept of Clinical Physiology, Randers Regional Hospital

⁴Institute of Health Science and Technology, Aalborg University

Aim: The objective of this study was to assess variability among trained observers in the interpretation of bone scans in an unselected population of patients with newly diagnosed prostate cancer.

Materials and methods: A total of 671 consecutive patients were referred to three sites from March 2008 to October 2009 for bone scintigraphy as a part of the staging workup for newly diagnosed prostate cancer. Standard whole body bone scans were independently reviewed by three experienced nuclear medicine physicians in a separate session. The three observers were blinded to clinical data. Each scan was classified according to two grading systems, A) a four category scale (1: normal scan and/or benign changes, 2: equivocal, 3: most likely malignant findings, and 4; multiple bone metastases), and B) a dichotomous scale (bone metastasis present or absent).

Results: Uniform classification of bone scans on the 4-point scale was observed in 440/671 (66%) patients (table). The agreement among individual observers and the median category scale was very similar (76% –78%). There was uniform agreement in 45% of patients with category 2 and 3 scans (representing 38% of all patients) with more than one scale of difference in 6/247 (2.4%) of these patients.

Category scale difference	Median category scale			
	1	2	3	4
No difference	291	107	4	38
Difference +/- 1	83	111	19	12
Difference +/- 2	0	3	3	0

Uniform agreement between the three reviewers was observed in 641/671 (96%) patients based on evaluation on a dichotomous scale.

Conclusion: There is a low variation among trained observers for evaluation of bone scans in patients with newly diagnosed prostate cancer. The variation was very low using a dichotomous grading scale. Variation in classification of patients with equivocal and suspected malignant findings may have significant impact on subsequent imaging workup and therapeutic decisions.

11. Reference values and correlation with body-composition for measurement of the total splanchnic blood flow

Zacho HD¹, Henriksen JH², Abrahamsen J¹

¹Dept. of Clinical Physiology, Viborg Hospital, Heibergs Allé 4, 8800 Viborg, Denmark

²Dept. of Clinical Physiology, Hvidovre Hospital, University of Copenhagen, Denmark

Aim: This study was undertaken to determine the total splanchnic blood flow (SBF) and oxygen uptake before and after a standard meal in a group of middle aged healthy subjects with arteriography proven normal intestinal arteries and to relate the findings to the anthropometric measures of the body in order to optimize the diagnostic criteria for chronic intestinal ischemia.

Materials and methods: Twenty healthy volunteers, in the age 40 - 70 years (ten women), were investigated. The SBF was measured before and after a standard meal (4000 kJ), using the Fick principle with continuous infusion of an indicator (^{99m}Technetium labelled mebrofenin) and catheterization of the hepatic vein and the abdominal aorta. Digital subtraction angiography was performed simultaneously. A whole body DEXA scan was performed to determine body composition.

Results: Angiography revealed no atherosclerotic lesions in the intestinal arteries. Mean baseline SBF was 1,087 mL/min (731 - 1,390); the mean meal-induced SBF-increase was 700 mL/min (314 - 1,145), SBF at baseline and the postprandial increase were independent of age, sex, lean body mass and percentage of body fat. The total splanchnic oxygen uptake was 50.7 mL/min (32.1 - 84.5) increasing to 77.5 mL/min (43.9 - 118.9) after the meal. The oxygen uptake increased significantly after the meal. Both the baseline oxygen uptake and the postprandial increase were directly related to lean body mass. Age and sex had no impact on oxygen uptake.

Discussion: The present study yields no correlation between SBF at baseline, the postprandial increase and body size, this is particularly important in the underweight patients suffering from chronic intestinal ischemia. This study supports that the meal induced increase in SBF should be larger than 250 mL/min in healthy middle aged individuals, otherwise chronic intestinal ischemia must be suspected.

12. Kognitiv mesterlære på børneafdelingen – hvad sker der og hvor lang tid tager det?

Lise Bols Andersen¹, Karen Markussen Linnet², Thomas Balslev^{1,3}

¹Børneafdelingen, Hospitalsenhed Midt

²Børneafdelingen, Aarhus Universitets Hospital

³MEDU, Center for Medicinsk Uddannelse, Aarhus Universitet

Formål: Ved mesterlære er der interaktion mellem mindst én lærende (lærling) og én mester. Kognitiv mesterlære fokuserer på at forbedre forståelse og klinisk ræsonnering, og formålet er læring samt sikring af kvalitet i patient undersøgelse og behandling. Formålet med dette studie var at beskrive praktisk gennemførelse af kognitive mesterlære situationer på tre børneafdelinger: Viborg, Herning og Skejby.

Metoder: Vi analyserede 485 registreringskort udfyldt af læger og medicinstuderende i forbindelse med et kvalitets-sikringsprojekt med kognitiv mesterlære. I alt deltog 59 forskellige lærende; 4 medicinstuderende, 49 reservelæger og 6 speciallæger i pædiatri. Der deltog 75 forskellige mestre; både reservelæger og speciallæger. De blev alle undervist i mesterlære via gentagne workshops.

Resultater: Kognitiv mesterlære, det vil sige en undervisningsseance i klinikken, hvor en lærling og en mester mødtes, varede median 9 minutter (interval 2-120 minutter). Dette gjorde sig gældende på alle tre børneafdelinger. I 47 % af situationerne undersøgte mester og lærling et barn sammen. I 91 % af situationerne rapporterede lærlingene, at de blev udfordret på deres viden. I 92 % af mesterlæresituationerne formulerede begge parter deres diagnostiske ræsonnementer. I 77 % af situationerne rapporterede lærlingene strategier for fortsat læring.

Konklusion: Der blev brugt median 9 minutter til mesterlæresituationerne. De fleste lærlinge rapporterede, at de blev udfordret i situationerne. I næsten halvdelen af situationerne undersøgte lærling og mester en patient i fællesskab, og oftest stimuleredes nysgerrigheden til yderligere læring. Kognitiv mesterlære er praktisk gennemførlig i hverdagen på børneafdelinger.

13. Endoscopic-assisted Treatment of Chronic Exertional Compartmental Syndrome (CECS) in the Lower Legs and Forearms

Karlsson MM, Stud.Med., Jöhnk KB, MD, Jensen SS, MD

Sports Medicine Clinic, Dept. of Orthopedics the Regional Hospital of Viborg, Denmark

Background: CECS is a rare condition, mostly seen in athletes with repetitive movements. Treatment with open fasciotomy is the golden standard, if conservative treatment is failed. Using endoscopic subcutaneous treatment is a novel way of making decompression of forearms and legs with high exertional pressure. Advantages of using an endoscope are such as good visualization of neurovascular structures, less complications and early recovery.

Purpose: We present this endoscopic-assisted technique as an option to open fasciotomy in treating CECS.

Materials and Methods: Three cases; two young adults doing high-level motocross (forearms) and one footballplayer (calf), was all diagnosed with CECS. At each site of the extremity, the skin was opened proximal and distal with a small incision. A subcutaneous tunnel was then created. Under vision of the endoscope the fascia of all compartments was incised. Afterwards incisions were closed with sutures, and the extremity wrapped with absorptive and compressing bandage.

Findings: There were no early complications after surgery, and early recovery was accomplished following a retraining program in the two cases with forearms. The patient with lower leg CECS is still followed.

Conclusion: The procedure can be done and seems of benefit, and it should be considered in patients with CECS. There is a low risk of complications.

Literature:

- Hijjawi J, Nagle D J. Endoscopic-assisted Fascial Decompression for Forearm Exertional Compartment Syndrome: A Case Report and Review of the Literature. *HAND* (2010) 5:427-429
- Stein D A, Sennett B J. One-Portal Endoscopically Assisted Fasciotomy for Exertional Compartment Syndrome. *The Journal of Arthroscopic and Related Surgery*, Vol 21, No 1 (January), 2005 pp 108-112
- Wittstein J, Moorman III C T, Scott Levin L. Endoscopic Compartment release for Chronic Exertional Compartment Syndrome: Surgical Technique and Results. *Am J Sports Med* 2010 38: 1661

14. Forbedring af visuel søgen i patient video cases

Thomas Balslev¹, Halszka Jarodzka^{2,4}, Kenneth Holmqvist³, Marcus Nyström³, Katharina Scheiter⁴, Peter Gerjets⁴, Berit Eika¹

¹Aarhus Universitet, Aarhus

²Open Universiteit, Heerlen, The Netherlands

³Lund Universitet, Lund, Sweden

⁴Tübingen University, Tübingen, Germany

Formål: Læring af almindelige neurologiske symptomer som bevægeforstyrrelser eller epileptiske anfald er vanskelig, da symptomerne ofte er kortvarige. Diagnoserne kræver ikke bare viden men også en evne til at undersøge for tegn og symptomer og til at tolke dem. Vi ved at erfarne klinikere er bedre til at undersøge visuelt og til at stille en præcis diagnose. Formålet med denne undersøgelse var at vise om demonstration af en eksperts øjenbevægelser kan fremme de lærendes visuelle søgen eller fortolkning af fundene.

Metoder: Der blev først fremstillet særlige undervisningsvideoer, hvor en ekspert forklarede og vha. eye-tracking viste, hvordan han stillede diagnoser. Medicinske studenter blev randomiseret til en af tre grupper, og studenterne så undervisnings-videoerne hver for sig. I gruppe A (cirkel-gruppen) blev de detaljer eksperten så på fremhævet med en cirkel. I gruppe B (spotlight-gruppen) blev de detaljer han ikke så på gjort uskarpe. I gruppe C, kontrolgruppen, blev videoen ikke ændret. Deltagernes søgning blev registreret vha. eye-tracking.

Resultater: Vi rekrutterede 60 deltagere, 20 til hver gruppe. Resultaterne viste at deltagerne i gruppe B, spotlightgruppen, var bedst til at rette opmærksomheden mod de interessante områder. Studiet viste også at spotlight gruppens deltagere efterfølgende var bedst til at søge i en række andre video cases og til at tolke symptomer og tegn.

Konklusion: Studiet viser at demonstration af en eksperts øjenbevægelser kan styre den lærendes visuelle opmærksomhed, og at fortolkning af symptomerne kan fremmes. Denne nye viden kan vejlede klinikere, som ønsker at bruge patient video cases i undervisningen.

15. Initiale resultater af den forebyggende kredsløbsundersøgelse af 60, 65, 70 og 75-årige kvinder i Viborg Kommune

Marie Dahl Thomsen (MDT)¹, Winnie Lorentzen (WL)¹, Henriette Lindholt (HS)¹, Vibeke Lorentzen (VL)², Ib Klausen (IK)³, Lars Frost (LF)⁴, Jes S Lindholt (JL)¹

¹Karkirurgisk Forskningssektion, RH Viborg

²Center for Sygeplejeforskning, RH Viborg

³Kardiologisk Afdeling, RH Viborg

⁴Medicinsk Afdeling, RH Silkeborg

Baggrund: Ultimo 2011 startede et forebyggende kardiovaskulært screeningsprogram af 60, 65, 70 og 75-årige kvinder i Viborg Kommune for abdominalt aortaaneurisme (AAA), perifer arteriosklerose (PAD), carotis plaque samt ikke-erkendt hypertension, diabetes, hyperkolesterolemie og atrieflimren.

Formål: At beskrive de initiale resultater vedr. risikofaktorer, interesse, sygdomshyppighed og eksisterende forebyggelse. Resultaterne skal indgå i en sundhedsøkonomisk modellering til belysning af nytte og omkostningseffektivitet ved et sådan samlet forebyggelsesprogram.

Metode: Tværssnitsundersøgelse (prævalensundersøgelse). Alle 60, 65, 70 og 75-årige kvinder i Viborg Kommune tilbydes forsøgsvis screeningsprogrammet, som varetages af en sygeplejerske og en assistent med sekretærassistance. Der inviteres én hver 25. minut, non-respondenter re-inviteres en enkelt gang (én hvert 10. minut). I alt inviteres ca. 2000.

Ved positivt fund iværksættes de fornødne forebyggende foranstaltninger, og KRAM-rådgivning ydes af Viborg Kommune.

Resultater: Præliminære resultater for de første ca. 500 deltagere vil blive gennemgået vedr. antal inviterede, fremmødehyppighed, hyppighed af AAA, PAD, carotis plaque, potentielt ikke-erkendt hypertension, potentielt ikke-erkendt hyperkolesterolemie, familiær hyperkolesterolemie, ikke-erkendt atrieflimren, og ikke-erkendt diabetes. Andel af positive hos hvem forebyggende behandling kunne initieres. Fundene angives totalt og for de fire aldersgrupper.

Diskussion og konklusion: Observerede hyppigheder diskuteres ud fra forventede fund, ligesom alderens betydning. Da ikke-fremmødte endnu ikke er re-inviteret, vil den endelige responsrate blive højere.

Udeblivere fra screeningstilbud vides generelt at have højere dødsrisiko, hvilket også må formodes at komme til at ske i aktuelle undersøgelser, hvorfor der sideløbende foretages interview og spørgeskemaundersøgelser til at få indsigt i motiverne for udeblivelse.

16. Experimental induction of infrarenal aortic aneurysms in a large porcine animal model

Brian O. Kloster¹, Lars Lund², Jes S. Lindholt¹

¹Vascular Research Unit, Department of Vascular Surgery, Viborg Hospital, Denmark.

²Departments of Urology, Viborg Hospital, Denmark.

E-mail: brian.kloster@ki.au.dk

Background: Until now it's only been possible to perform experimental studies of AAA in small animal models and on samples from surgical specimens. Recently however, researchers managed to induce aneurysm formation in smaller pigs. This study seeks to reproduce and further refine the technique so that an aneurysm can be induced in even larger pigs. This will give access to the most realistic animal model with aneurysm disease with anatomy and physiology similar to humans and thus allow for new experimental research in the initial natural history and treatment options of the disease.

Methods: 10 pigs (group A) weighing 31-38kg. (mean 34kg.) underwent an abdominal surgical procedure with infrarenal aortic clamping, balloon dilatation, infusion of porcine pancreatic elastase into the lumen and placement of a stenosing cuff around the aorta just below the renal arteries, whereby the aneurysm formation was initiated. A control group of 10 pigs (group C) weighing 30-38kg. (mean 34kg.) underwent infrarenal aortic clamping for 30min. In the subsequent 28 days the AP-diameter of the aneurysm was measured using ultrasound and blood and urine samples were taken continuously for later analysis. After 28 days with growth of the aortic aneurysms laparo-and thoracoscopic procedures were carried out to test the clinical value of the model were an experimental vascular intervention on the aneurysm was performed, which possibly in the future can be used to correct some types of complications typically seen after the stenting treatment (EVAR/TEVAR) of aortic aneurysms in humans.

Results: All 10 pigs in group A developed AAA with a mean increase in AP-diameter of 57%±10,21SD (Range 47-78%). In control group C there was no sign of developing aneurysms as mean increase in AP-diameter was 9,6%±1,26SD (Range 8-11%). Preoperative weight was found to influence the final outcome as lower preoperative weights resulted in larger AP-diameters after 28 days.

Conclusion: With this technique it is possible to induce infrarenal AAA in a porcine animal model in the 31-38 kg. weight range.

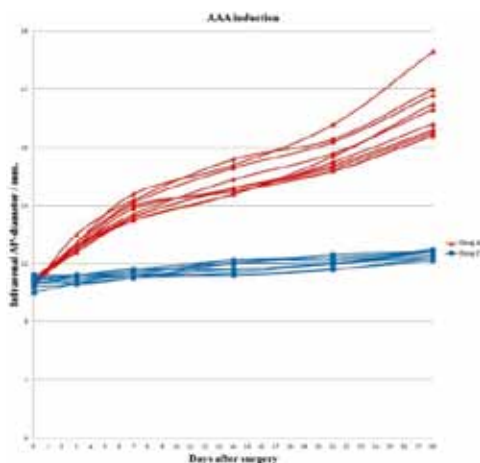


Fig 1. Notice the significantly larger infrarenal AP-diameter in group A 28 days after surgery compared to the control group C.

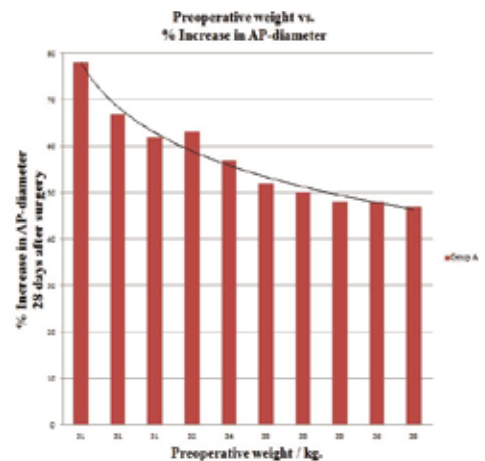


Fig 2. Preoperative weight was found to influence the final outcome as lower preoperative weights resulted in larger AP-diameters after 28 days.

17. Evaluering af maksimal anbefalet alder på blodprøve inden fremstilling af udstrygningspræparat til differentialtælling

Høyer, S.

Klinisk Biokemisk Afdeling, Regionshospitalet Viborg

Baggrund: På Klinisk biokemisk afdeling (KBA), Regionshospitalet Viborg udfører vi manuel differentialtælling af udstrygningspræparater til såvel diagnostisk som opfølgende undersøgelse. På forskellige hospitaler er der varierende praksis for, hvor gamle blodprøver må være inden udstrygning. På KBA har vi anvendt en grænse på 4 timer, men indenfor Region Midt er grænsen nogle steder helt op til 36 timer. I litteraturen anbefales det at udstrygningspræparatet fremstilles hurtigst muligt (ifølge Lyngbys laboratoriemedicin højst 6 timer efter blodprøvetagning).

Formål: Som afgangprojekt på Den sundhedsfaglige diplomuddannelse i professionspraksis har jeg gennemført en undersøgelse med formålet at vurdere den tilladelige alder på en blodprøve inden fremstilling af udstrygningspræparatet.

Metoder: Da holdbarheden af de enkelte celletyper kan afhænge af patientens tilstand er der undersøgt udstrygningspræparater fra hhv. raske (n=15), patienter med bakteriel infektion (n=15), patienter med kronisk lymfatisk leukæmi (CLL) (n=15) og patienter med mononukleose (n=3).

Udstrygningspræparater blev fremstillet hhv. 0, 2, 4, 6, 8, 12, 24 og 36 timer efter blodprøvetagning. For hvert individ blev præparater fremstillet efter de angivne antal timer sammenlignet med præparatet fremstillet umiddelbart efter blodprøvetagning. Følgende parametre blev sammenlignet: antalkoncentration af neutrofile, lymfocytter, monocytter og uklassificerbare celler, antal celleskygger pr. 100 talte leukocytter samt morfologiske ændringer af leukocytter og erythrocytter.

Resultat: Der blev påvist signifikant forskel i antallet af neutrofile og lymfocytter hos raske efter 6 timer og hos CLL patienter efter 24 timer. Ved bakteriel infektion sås ændring i antallet af neutrofile efter 8 timer. Der blev ikke påvist signifikant forskel for monocytter. Antallet af uklassificerbare celler og celleskygger steg over tid, og der blev observeret morfologiske ændringer af erythrocytter og leukocytter efter hhv. 6 og 8 timer hos raske.

Konklusion: Udstrygningspræparater bør fremstilles højst 6 timer efter blodprøvetagning, hvis erythrocytters former skal indgå i vurderingen af den manuelle differentialtælling, ellers bør den maksimale grænse være 8 timer.

18. Implementering af Assessment of Motor and Process Skills (AMPS)

Kjeldsen C., ergoterapeut

Fysio- og Ergoterapien, Regionshospitalet Viborg, Hospitalsenhed Midt, Danmark

Formål:

Patienternes indlæggelsesforløb på hospitalet er gennem de seneste år blevet optimeret. Det stiller store krav til ergoterapeuterne om en hurtig og fyldestgørende undersøgelse og vurdering af patienternes aktivitetsudførelse (ADL- evne) for at kunne iværksætte den mest relevante intervention under indlæggelse og/eller sikre en god overdragelse af patienten til kommunalt regi ved udskrivelsen.

Det overordnede formål med projektet er at implementere undersøgelsesredskabet AMPS ud fra en hypotese om, at det kan bidrage positivt til kvaliteten af vurderingerne af patienternes ADL- evne.

Samtidig med ønsker vi at undersøge, om vi kan opsætte klare kriterier og retningslinjer for, hvornår AMPS skal anvendes på Regionshospitalet Viborg, da det ikke er relevant at teste alle patienter med AMPS.

Mål:

- Valid undersøgelse af patientens ADL- evne.
- Data, som kan danne grundlag for at iværksætte relevant genoptræning eller kompenserende tiltag.
- Indikation af hvilken type intervention patienten i højest grad kan profitere af.
- Dokumentation for patienternes behov for genoptræning og/eller assistance.
- Skarp og relevant formidling af patientens behov til tværfaglige samarbejdspartnere på hospitalet samt ved overdragelse til kommunen.
- Klare retningslinjer for anvendelsen af AMPS.

Metoder:

Projektet er et kvalitetssikringsprojekt og indeholder bl.a. følgende delaktiviteter:

- Udarbejdelse af retningslinje for anvendelse af AMPS.
- Udarbejdelse af skabelon i den elektroniske patientjournal (EPJ) til dokumentation af AMPS.
- Praksisafprøvning af AMPS, herunder implementering af retningslinje og skabelon til dokumentation.
- Løbende evaluering og justering.

I projektperioden anvendes AMPS til udvalgte patientgrupper: Patienter med KOL, collum femoris fraktur, dese, sclerose og Parkinson.

Resultater

Projektet er igangsat oktober 2011 og forventes afsluttet ultimo marts 2012.

19. Impact of soluble TWEAK and CD163/TWEAK ratio on long-term cardiovascular mortality in patients with peripheral arterial disease

Urbonaviciene G^{1,2}, Martin-Ventura JL³, Urbonavicius S¹, Moreno JA³, Egido J³, Blanco-Colio LM³, Lindholt JS¹

¹ Vascular Research Unit, Department of Vascular Surgery, Viborg Hospital

² Department of Internal Medicine, Diagnostic Centre, Silkeborg Hospital

³ Medical Lab, Autonoma Univerversity, Madrid

Aim: Soluble tumor necrosis factor-like weak inducer of apoptosis (sTWEAK) has recently been introduced as a potential mediator of cardiovascular disease. We examined the associations between sTWEAK, its scavenger receptor sCD163, sCD163/sTWEAK ratio and risk for long-term all-cause and cardiovascular mortality in patients with lower-extremity peripheral arterial disease (PAD).

Methods: sTWEAK and sCD163 serum levels were measured retrospectively in a cohort of 295 patients with symptomatic PAD followed for 6.1±2.1 years. The endpoints were defined as all-cause or cardiovascular death. The relationship between sTWEAK, sCD163 levels, sCD163/sTWEAK ratio, and times to fatal outcome was examined by Cox proportional hazards analysis.

Results: sTWEAK levels were significantly lower (672 (IQR 515; 872)pg/ml vs. 814 (IQR 673; 957)pg/ml, $p < 0.0001$), and sCD163/sTWEAK ratio significantly higher (0.91 (IQR 0.63; 1.37) vs. 0.77 (IQR 0.55; 1.12), $p = 0.008$) in patients with critical limb ischemia (CLI) on admission as compared with those with intermittent claudication (IC). During follow-up, 80 (27%) patients died, hereof 33 (11.5%) of cardiovascular causes. Cox regression analysis revealed that an increase of 100 pg/ml of baseline sTWEAK were associated with a decreased risk for all cause [adjusted hazard ratio (HR) 0.89 (95%CI (0.80-0.99)), $p = 0.043$] and cardiovascular mortality [adjusted HR 0.83 (95% CI (0.69-0.99)), $p = 0.038$].

The patients with lower sTWEAK concentrations had a higher risk for cardiovascular death being more than two times as great as patients in the two upper tertiles (adjusted HR 2.2, 95% CI (1.06-4.87), $p = 0.035$). Similarly, the risk of cardiovascular death was 3-fold increased for patients in the upper tertile of sCD163/sTWEAK ratio as comparing with the patients in two lower tertiles (adjusted HR 3.04, 95% CI (1.44-6.43), $p = 0.004$). The model including sCD163/sTWEAK ratio have shown a significant improvement in accuracy of cardiovascular death prediction (the area under ROC curve 0.79 (0.72-0.86) vs. 0.84 (0.78-0.90), $p = 0.019$).

Conclusions: Decreased sTWEAK concentration, and increased sCD163/sTWEAK ratio were significantly and independently associated with long-term cardiovascular mortality in patients with lower-extremity PAD.

Atherosclerosis. 2011 Dec;219(2):892-9.

20. The prognosis of ruptured abdominal aortic aneurysms in Denmark 1994-2008

Jes S. Lindholt¹, Rikke Sjøgaard², Jesper Laustsen³

¹Vascular Research Unit, Dept. of Vascular Surgery, Viborg Hospital, Clinical Institute, University of Aarhus, Denmark

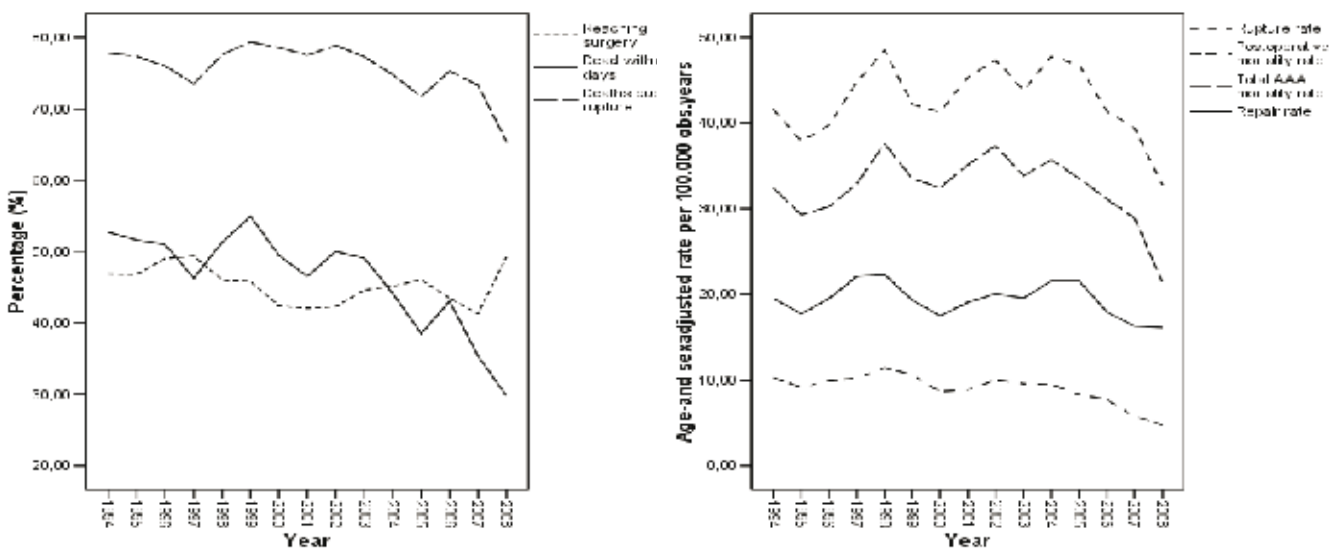
²Centre for Applied Health Service Research and Technology Assessment, Institute of Public Health, University of Southern Denmark, Denmark

³Department of Vascular Surgery T, Aarhus University Hospital, Denmark

Introduction: Modern population-based estimates of the prognosis of ruptured abdominal aortic aneurysms (rAAA) are sparse.

Methods and material: From 1994-2008, 6,954 rAAA were identified in Danish nation-wide population-based registries. Results: 3,148 had surgery (45%). Of these, 1,454 died within 30 days postoperatively (46%). Consequently, the overall mortality risk of ruptured AAA was 76%. The age-adjusted mortality rate of rAAA was 33.5/100,000 years. The proportion of rAAA receiving surgery declined from the first half of the time period to the last from 47% to 44%, but so did the 30 days postoperative mortality (51% vs 42%). Consequently, the overall mortality risk of rAAA declined significantly from 77% in first half to 74% in last period (OR=0.86, 95% C.I.: 0.77;0.97).

Figure 1. Prognosis of ruptured abdominal aortic aneurysm in Denmark 1994-2008: Proportions reaching surgery, 30-day postoperative mortality and overall mortality (Left panel) and age- and sex matched rupture rates, overall and postoperative mortality rates per 100,000 person-years (Right panel)



21. Korrelation mellem kliniske, genetiske og neurofysiologiske resultater ved hereditær sensorisk motorisk neuropati i perioden 2000-2009

Poulsen MS¹, Fuglsang-Frederiksen A², Agerholm A³, Tankisi H²

¹Neurologisk Afdeling, Regionshospitalet Viborg

²Neurofysiologisk Afdeling, Århus Universitetshospital

³Klinisk Genetisk Institut, Århus Universitetshospital

Formål: At belyse korrelation mellem kliniske, genetiske og neurofysiologiske resultater ved arvelig neuropati og at undersøge om hereditær motorisk sensorisk neuropati (HMSN) er en elektrofysiologisk uniform sygdom som antaget hidtil.

Baggrund: HMSN er den hyppigste arvelige sygdoms enhed i nervesystemet. Udredning for HMSN er en kombination af klinisk, neurofysiologisk og genetisk undersøgelse. Genetisk er der nu kendskab til en række mutationer, den hyppigste: duplikation af PMP22 kromosom 17 nedarves autosomal dominant. Ved neurofysiologisk nerveledningsundersøgelse angives et uniformt mønster uden ledningsblok eller øget temporal dispersion; parametre som ofte bruges i differentialdiagnostik ved inflammatoriske polyneuropatier. Øget varighed af motoriske compound aksionspotentialer er forslået som kriterie for inflammatoriske polyneuropatier i 2005¹ samt ny kriterier publiceret 2010².

Materiale og metode: Patienter med hereditær neuropati DG60.0 undersøgt på Århus Universitetshospital klinisk og neurofysiologisk i perioden 2000-2009 er inkluderede. Journalgennemgang med registrering af kliniske, genetiske og elektrofysiologiske data er udført. Neurofysiologiske data er gennemgået mhp. at klassificere HMSN som demyeliniserende eller axonal ifølge ESTEEM criteria³. (European Standardized Telematic tool to Evaluate Electrodiagnostic Methods).

Resultater: 31 patienter med klinisk og/eller genetisk arvelig neuropati indgik. 25 havde genetisk undersøgelse (7 havde hereditær trykneuropati, 9 duplikation PMP22, 2 GJB1 X-bundet mutation, 7 negativ genundersøgelse). 19 med HMSN var neurofysiologisk demyeliniserende. Af 81 motoriske nerver var der ni nerver (11%) med motorisk ledningsblok og syv nerver (9%) med over 30% øget temporal dispersion. Der var 41 nerver (51%) med forlænget varighed af distal motorisk compound aktionspotentialer.

Konklusion: HMSN bør udredes klinisk, neurofysiologisk og genetisk. Et nonuniformt elektrofysiologisk demyeliniserende mønster kan forventes. EFNS-PNS Task Force criteria² bør revideres (European Federation of Neurological Societies/ Peripheral Nerve Society).

22. Estimating the glomerular filtration rate using serum cystatin C levels in patients with spinal cord injuries

Johannesen IL¹, Hansen RM¹, Randers E², Petersen LE³, Abrahamsen J³, and Erlandsen EJ⁴

Departments of
Spinal Cord Injury¹
Internal Medicine²
Clinical Physiology³
Clinical Biochemistry⁴
Viborg Regional Hospital, Viborg, Denmark

Objectives: To investigate the relationship between ⁵¹Cr-EDTA clearance, serum cystatin C (CysC), serum creatinine, creatinine clearance, and estimated glomerular filtration rate ($eGFR_{MDRD}$) based on the serum creatinine in patients with complete or incomplete spinal cord injury (SCI) and to develop and evaluate a GFR-estimating equation using serum CysC.

Methods: Ninety-eight men and 47 women with SCI were included in the study. Serum CysC levels were measured by an automated particle-enhanced nephelometric immunoassay, serum and urine creatinine levels were measured by an enzymatic method traceable to the IDMS creatinine reference method, and ⁵¹Cr-EDTA clearance was measured by a multiple plasma sample method.

Results: The area under the curves (AUCs) in the non-parametric ROC plots for serum CysC were compared to serum creatinine and to $eGFR_{MDRD}$ and revealed a significant difference (p -value < 0.05) for all SCI patients. There was no significant difference between the AUC for serum CysC compared with the AUC for creatinine clearance. GFR (mL/min/1.73 m²) can be calculated from serum CysC values (mg/L) using the equation $eGFR_{CysC} = 212 \cdot \exp(-0.914 \cdot CysC)$. The model accurately predicted the GFR of 88% of patients within $\pm 30\%$ of the measured GFR, and it was able to predict the GFR of 50% of patients within $\pm 10\%$ of the measured GFR.

Conclusion: In patients with SCI, GFR can be estimated independent of age, sex, and muscle mass by a newly developed equation based on a single serum CysC value.

23. Panayiotopoulos syndrom - en epilepsiform, som er nem at overse En case serie

Christine Andersen og Thomas Balslev

Børneafdelingen, Regionshospitalet Viborg

Formål: Panayiotopoulos syndrom er en selvbegrænsende epilepsiform hos børn, typisk debuterende i 3-6 års alderen. Karakteristisk for anfaldene er, at de domineres af autonome symptomer, primært kvalme, opkastninger, bleghed, savlen og eventuelt adfærsændringer. Oftest progredierer anfaldene til at omfatte mere konventionelle anfaldssymptomer som bevidsthedspåvirkning, øjendeviation, kramper og lignende. Anfaldene er ofte langvarige og cirka 2/3 af anfaldene kommer ud af søvn. Disse faktorer medvirker til at tilstanden nemt overses eller forveksles med andre lidelser. Vi rapporterer her 3 tilfælde, alle diagnosticeret og behandlet ved børneafdelingen, for at øge opmærksomheden på tilstanden

Metode: Journalgennemgang. Tre karakteristiske sygehistorier og EEG fremlægges.

Resultater: Alle tre patienter havde langvarige anfald med slaphed, apati og opkastninger.

Diskussion: Panayiotopoulos syndrom er en underrapporteret lidelse, der ofte forveksles med andre tilstande. Dette kan føre til unødvendige diagnostiske tiltag samt usikkerhed hos forældre og i behandlesystemet. Idet der er tale om en hyppig epilepsiform, er det essentielt, at de læger der til dagligt arbejder med børn har den tilstrækkelige viden om syndromet, således patienter kan få den rette behandling og rådgivning samt undgå unødvendig udredning.

Kilder:

1. CP Panayiotopoulos. A Clinical guide to Epileptic Syndromes and their Treatment s. 293-302
2. Developmental Medicine and Child Neurology 2006, 48: 236-240
3. Ugeskr Læger 8-11 2004, 166/46: 4140-4144

24. Predictive value of serum progesterone for spontaneous resolution of pregnancies of unknown location (PUL)

Majeed HG¹, Højgaard A², Bor P²

¹Department of Obstetrics and Gynecology, Viborg Regional hospital, Denmark

²Department of Obstetrics and Gynecology, Randers Regional hospital, Denmark

Background and objective: The incidence of pregnancies of unknown location (PUL) is about 10 % among women in early pregnancy, and 44-69% of PULs represent spontaneously resolved pregnancies. The aim of this study was to determine whether serum progesterone is a clinically useful marker for spontaneous resolution of PUL.

Methods: Prospective observational study Serum progesterone was determined at the first visit and after 2 days. All patients were monitored with clinical assessment and by serum human chorionic gonadotropin (hCG) measurements until a final diagnosis of spontaneously resolved PUL, viable or nonviable intrauterine pregnancy or ectopic pregnancy, had been reached.

Results: 105 women classified with PUL were included. The final pregnancy outcomes were: 52 spontaneously resolved PUL (49.5%), 37 viable intrauterine pregnancies (35.2%), 8 non viable intrauterine pregnancies (7.6%), 7 ectopic pregnancies (6.7%) and one molar pregnancy (1.0%). Using s-progesterone with a cut-off <20 nmol/l to predict spontaneously resolved pregnancy resulted in a sensitivity, specificity, PPV, and NPV of 0.96, 0.94, 0.94, and 0.96 respectively. The area under the ROC curve (AUC) of progesterone for prediction of spontaneously resolved pregnancy among all PUL was 0.97. Median s-progesterone was significantly different in the 4 groups ($p < 0.001$).

Conclusion: S-progesterone <20 nmol/l seems to be reliable predictor for uneventful expectant management of PUL.

25. Årsager til fjernelse af IUD (intrauterine contraceptive device) hos kvinder i almen praksis

Kolding L, Majeed HG.
Kvindeafdelingen Regionshospitalet Viborg.

Formål: Undersøge årsager til fjernelse af kobber- og hormonspiraler før tid hos kvinder i almen praksis.

Metode: Retrospektiv undersøgelse gennem journal gennemgang i Lægehuset i Brande over en 10-årig periode fra juni 2001 til juni 2011.

Data, der blev trukket fra MedWin-systemet, var kvinder med antikonceptionelle midler til lokal applikation (spiral+ p-ring), ATC kode G02B, registreret på udskrevet recept.

Resultater:

238 kvinder har fået oplagt en eller flere spiraler i den 10 årige periode. Hos de 238 kvinder blev der i alt opsat 339 spiraler, 187 kobberspiraler (55%) og 152 hormonspiraler (45%).

33 kobberspiraler (18%) og 20 hormonspiraler (13%) blev fjernet før tid på grund af gener. Blødningsforstyrrelser og dysmenoré var angivet som den hyppigste årsag, henholdsvis 29 (16%) kobberspiraler og 11 (7%) hormonspiraler blev fjernet på grund af disse gener. Infektionsraten var lav og tilnærmelsesvis ens i begge grupper (<1%), 4 patienter fik fjernet hormonspiralen på grund af hormonel påvirkning (3%).

Ekspulsionsraten var 5% af hormonspiralerne i forhold til 3% af kobberspiralerne.

5 kvinder var blevet gravide med kobberspiral (3%), ingen var blevet gravide med hormonspiral. Ingen ekstrauterine graviditeter var registreret i perioden.

Konklusion:

Generelt er der stor tilfredshed ved brug af begge IUD typer set over den 10-årige periode. Der er registreret flere gener hos kvinder med kobber IUD i forhold til kvinder med hormon IUD. Blødningsforstyrrelser og dysmenoré var de hyppigste årsager til fjernelse af IUD før tid hos kvinder i almen praksis.

