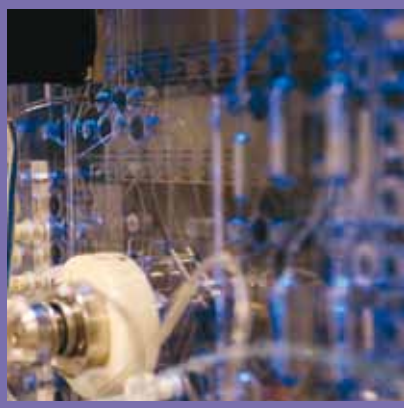


REGION

Abstracts

Forskningens Dag 2011

Gentofte Hospital

Forskningens Dag 2011

Gentofte Hospital

Tirsdag 22. november 2011 kl. 12.00 – 16.30

i Store Auditorium og forhallen, Auditoriebygningen, opg. 28.

Kl. 12.00 – 12.30 Posterpræsentationer/postervandring i forhallen. Hertil serveres sandwich og vand. Fire anonyme dommere vil gå på postervandring. Alle postere er bemandede

Kl. 12.30 – 12.40 Forskningens Dag på Gentofte Hospital åbnes af vicedirektør Lars Juhl Petersen og forskningschef Jüri Rumessen

Kl. 12.40– 13.30 **Kampen om sundheden** - Hvorledes kan humanistisk sundhedsforskning bidrage til udvikling af klinisk praksis og til udvikling og prioritering i sundhedsvæsenet i almindelighed?
Forskningsleder Uffe Juul Jensen, Afdeling for filosofi v/Center for Sundhed, Menneske og Kultur, Aarhus Universitet

Kl. 13.30 – 14.10 4 mundtlige præsentationer à 10 minutters varighed
Chairman: Forskningschef Jüri Rumessen

- Astrid Plamboeck, afd. F: Gastrointestinal-mediated Glucose Disposal in Vagotomised Subjetcs
- Cu Dinh Nguyen, afd. P: Long-term Outcomes and Prognostic Importance of Indificual Risk-factors in Overweight and Obese Men and Women with Diabetes and Cardiovascular Disease: Data from a Large Clinical Trial (SCOUT)
- Emily Cathrine Wenande, afd. K: Type I Hypersensitivity Reactions to Macrogols
- Carsten Juhl, afd. C: Impact of Exercise Type and Dose on Pain in Knee Osteoarthritis: a Systematic Review and Meta-analysis

Kl. 14.10 – 14.50 Posterpræsentationer med servering af kaffe og kage. Fire anonyme dommere vil gå på postervandring. Alle postere er bemandede

Kl. 14.50 – 15.30 4 mundtlige præsentationer à 10 minutters varighed
Chairman: Forskningsleder Hanne Konradsen

- Gerda Linsted, afd. K: Transfusion-associated Anaphylaxis
- Lene Dreyer, afd. C: High Incidence of Potentially Virus-induced Malignancies in Systemic Lupus Erythematosus: A Danish Long-term Follow-up Study
- David Peick Sonne, afd. F: Preserved Postprandial GLP-1 Responses in Cholecystectomized Subjects: No Evidence of a Physiological Role of Gallbladder Emptying and Postprandial GLP-1 Release
- Michelle Schmiegelow, afd. P: Body Mass Index is Inversely Correlated to Risk of Definite Stent Thrombosis after Percutaneous Coronary Intervention Irrespective of Stent Type – a Register-based Study

Kl. 15.30 – 16.20 **Kvalitative metoder i lægevidenskabelig forskning**
Lektor, dr.med., ph.d. Lone Schmidt, Institut for Folkesundhedsvidenskab, Københavns Universitet

Votering og optælling af stemmer til konkurrence om bedste mundtlige præsentation og bedste poster

Kl. 16.20 – 16.30 Præmieoverrækkelser

NR.	NAVN	AFD	ABSTRACT TITEL

FOREDRAG

F1	Astrid Plamboeck	F	Gastrointestinal-mediated glucose disposal in vagotomised subjects
F2	Cu Dinh Nguyen	PA Forskning	in overweight and obese men and women with diabetes and cardiovascular disease: data from a large clinical trial
F3	Emily Cathrine Wenande	K	Type I Hypersensitivity Reactions to Macrogols
F4	Carsten Juhl	C Fys	Impact of exercise type and dose on pain in knee osteoarthritis: a systematic review and meta-analysis
F5	Gerda Lindsted	K	Transfusion-associated Anaphylaxis
F6	Lene Dreyer	C	High incidence of potentially virus-induced malignancies in systemic lupus erythematosus: A Danish long-term follow-up study
F7	David Peick Sonne	F	Preserved Postprandial GLP-1 Responses in Cholecystectoized Subjects: No Evidence of a Phsiological Role of Gallbladder Emptying in Postprandial GLP-1 Release
F8	Michelle Schmiegelow	PA Forskning	thrombosis after percutaneous coronary intervention irrespective of stent type - a register-based study

POSTERE

P1	Anders Ellekær Junker	F	Pathophysiological implications of the incretin hormones in patients with lever disease with and without diabetes
P2	Anne Gjesing	PA forskning	Patient adherence to evidence-based pharmacotherapy in heart failure and the transition of follow-up from specialized heart failure outpatient clinics to primary care - a nationwide study
P3	Anne-Marie Schjerning Olsen	P	Cause -specific Cardiovasular Risk Associated with use of Nonsteroidal Anti-inflammatory Drugs among Patients with Prior Myocardial Infarction - A Nationwide Study
P4	Beatrice Dyring-Andersen	K	The role of γδ T cells in human skin and blood
P5	Britta C. Poulsen	K	Conflicting evidence for human basophils as antigen presenting cells
P6	Carolina Malta Hansen	P	Initiation and Persistence with Warfarin Therapy in Atrial Fibrillation According to Ethnicity
P7	Carrinna Hansen	C & F	Predictors of Adherence to Oral Bisphosphonate Therapy: A Register-based National Open Cohort Study
P8	Christian Selmer	PA forskning	Thyroid Function and Risk of Atrial Fibrillation
P9	Cu Dinh Nguyen	PA forskning	Long-term outcomes and prognostic importance of individual risk-factors in overweight and obese men and women with diabetes and cardiovascular disease: data from a large clinical trial
P10	David Peick Sonne	F	Preserved Postprandial GLP-1 Responses in Cholecystectoized Subjects: No Evidence of a Phsiological Role of Gallbladder Emptying in Postprandial GLP-1 Release
P11	Emily Cathrine Wenande	K	Type I Hypersensitivity Reactions to Macrogols
P12	Gerda Lindsted	K	Transfusion-associated Anaphylaxis
P13	Gunhild Bukh, Sussi Larsen, Susse Skalsted Rasmussen	C	Continued Tocilizumab infusion for Rheumatoid Arthritis is well tolerated and safe at an aelerated infusion rate.
P14	Helle L. Hoff	P	Sygepleje til patienter med atrieflimmer
P15	Ingelise Trosborg og Linda Christensen	Y & I	Mundstatus og behov for mundpleje blandt patienter akut indlagt med medicinsk sygdom
P16	Jacob Sivertsen	P	Uridine triphosphate has fewer side effects than adenosine when estimating coronary fractional flow reserve in humans
P17	Jesper Lindhardsen	P	Initiation and adherence to secondary prevention pharmacotherapy after myocardial infarction in patients with rheumatoid arthritis

NR.	NAVN	AFD	ABSTRACT TITEL
P18	Jonatan Ising Bagger	F	Basal Plasma Glucose, Insulin and Glucose-Dependent Insulinotropic Polypeptide Constitute Important Determinants of Fasting Hyperglucagonemia in Type 2 Diabetes
P19	Kirsten Szøts	Z	Oplevet dagligliv i den første rehabiliteringsperiode hos patienter opereret med knæalloplastik
P20	Lars Blom	K	IL-33 induces IL-9 production in human T helper cells
P21	Lene Høgh Søderberg	P	Hvilken indflydelse har 1. gangs AMI på oplevelsen af seksuel sundhed, 3 måneder efter sygdomsdebut
P22	Louise Asserhøj	K	Is propofol contraindicated in egg-, soy- and peanut allergics
P23	Mads Wissenberg	PA forskning	Forbedret overlevelse efter hjertestop udenfor hospital i Danmark
P24	Maria Vølund Heisterberg	K Videncenter for Allergi	Contact allergy to the 26 specific fragrance ingredients to be declared on cosmetic products in accordance with the EU Cosmetic Directive
P25	Marianne B. Løvendorf	K	Comparison of microRNA expression using different preservation methods of matched psoriatic skin samples
P26	Marianne Witten	K	Intralymphatic specific immunotherapy - a new treatment form for grass pollen allergy - A prelimary safety study
P27	Martin H. Ruwald	P	Syncope a nationwide epidemiological study
P28	Mette Gitz Charlot	P	Thrombotic events following clopidogrel discontinuation in patients with myocardial infarction: a nationwide cohort study
P29	Mette Gyldenløve	K	Psoriasis and cardiovascular risk - a Danish hospital cohort
P30	Mia Nielsen	P	Obstructive Sleep apnea and its impact on mortality in patients suffering from obesity, cardiovascular disease and/or type II diabetes
P31	Michelle Schmiegelow	PA forskning	Body mass index is inversely correlated to risk of definite stent thrombosis after percutaneous coronary intervention irrespective of stent type - a register-based study
P32	Mikkel Christensen	F	Glucose-dependent Insulinotropic Polypeptide - a Bifunctional Glucose-dependent Regulator of Glucagon and Insulin Secretion in Man
P33	Morten Lamberts	P	Risk and time of bleeding in relation to initiating antithrombotic drugs after myocardialinfarction and percutaneous coronary intervention in patients with atrial fibrillation - A nationwide cohort study
P34	Nicolai Alexander Rhee	F	Anatomical and physiological characterization of the gut endocrine cells and their role in medical and surgical treatment of diabetes mellitus
P35	Ole Rintek Madsen	C	Is DAS28 (CRP) with three and four variables interchangeable in rheumatoid arthritis patients selected for biological treatment in daily clinical practice?
P36	Peter Godsk Jørgensen	P	Prognostic significance of electrocardiographic Q-waves in a low risk population
P37	Peter Jensen	K	YKL-40: a potential biomarker for psoriatic arthritis?
P38	Signe Harring Østoft	F	Glucose tolerance and gastrointestinal-mediated glucose disposal in patients with maturity onset diabetes of the young
P39	Søren Østergaard Lindberg	P	Prognostic Utility of Neutrophil Gelatinase-Associated Lipocalin (NGAL) in Predicting Mortality and Cardiovascular Events in Patients with ST-Segment Elevation Myocardial Infarction Treated with primary Percutaneous Coronary Intervention
P40	Trine Bernholdt Rasmussen	P	CopenHeartIE1 - Effekt og betydning af integreret rehabilitering til patienter behandlet for infektiøs endokardit (IE)
	FIE & Tectra		Informationsstand
	Clinical Trial Alliance		Informationsstand

Forskningens Dag 2011

FOREDRAG

Gastrointestinal-mediated glucose disposal in vagotomised subjects

Astrid Plamboeck1,2, Klinisk assistent

Simon Veedfald1,3, Carolyn F. Deacon2, Andre Wettergren3, Lars B. Svendsen3, Søren Meisner4, Claus Hovendal5, Jens J. Holst2, Filip K. Knop1 & Tina Vilsbøll1

1Diabetes Research Division, Department of Internal Medicine, Gentofte Hospital, University of Copenhagen, Gentofte, Denmark, 2Department of Biomedical Sciences, the Panum Institute, University of Copenhagen, Copenhagen, Denmark ,3Department of Surgical Gastroenterology, and Liver Transplantation, Rigshospitalet, University of Copenhagen, Copenhagen, Denmark, 4Department of Surgical Gastroenterology, Bispebjerg Hospital; University of Copenhagen, Copenhagen, Denmark and 5Department of Surgical Gastroenterology, Odense University Hospital, University of Odense, Odense, Denmark

---

Abstract:

After secretion, glucagon-like peptide-1 (GLP-1) is degraded by the enzyme dipeptidyl peptidase-4 (DPP-4), resulting in <15% intact peptide reaching the circulation. This has led to the hypothesis that GLP-1 acts locally before being degraded. We aimed to clarify the role of vagal nerve for the incretin effect of GLP-1 evaluated by gastrointestinal-mediated glucose disposal (GIGD).

Ten truncally vagotomised with pyloplasty (duodenal ulcer) subjects (age: 68±2 years (mean±SEM); fasting plasma glucose (FPG): 6.0±0.2 mM), 10 subjects treated for oesophageal cancer with resection of the cardia including truncal vagotomy and pyloroplasty (age: 65±2 years; FPG: 5.8±0.3 mM) and 10 control subjects (age: 67±1 years; FPG: 5.3±0.1 mM) were examined on three separate occasions: 4h 50-g OGTT, isoglycaemic iv glucose infusion (IIGI) and an additional OGTT with concomitant DPP-4 inhibition.

Isoglycaemia was obtained in all three groups. Peak PG during the OGTTs ± DPP-4i and IIGI were similar in the two vagotomised groups (13.8±0.8 vs. 13.2±0.6 mM, 13.7±0.1 vs. 12.2±0.6 mM, 13.9±0.8 vs. 13.9±0.8 mM, P=NS), and higher than in the control group (9.3±0.5 mM, 9.2±0.5 mM, 8.8±0.4 mM, P<0.0009). There was no effect of DPP-4i on PG in any of the groups. The two vagotomised groups had about a 5-fold increase in secretion of GLP-1 after OGTT ± DPP-4i compared to the control group. Isoglycaemia during IIGIs was obtained using 26±2 g and 26±3 g of glucose in patients with truncal vagotomy (duodenal ulcer and cardia resection, respectively (P=NS)) and 18±2 g in control subjects (P<0.02 and P<0.05 compared to the two vagotomised groups), resulting in GIGD of 49±4 and 48±6% in the two vagotomy groups (NS) and 63±4% in control subjects (P<0.02 and P<0.05).

Vagotomised subjects have impaired glucose homeostasis, GIGD and a 5-fold increase in secretion of GLP-1 compared to controls which may be due to accelerated gastric emptying (pyleroplasty). Our results suggest that intact vagal innervation is important for the insulinotropic effects of GLP-1 and thereby the maintenance of normal glucose homeostasis.

KLINISK EKSPERIMENTEL FORSKNING

Long-term outcomes and prognostic importance of individual risk-factors in overweight and obese men and women with diabetes and cardiovascular disease: data from a large clinical trial (SCOUT).

Cu Dinh Nguyen, Forskningsårsstuderende, Kardiologisk afdeling, PA-forskning, Gentofte Hospital

Christian Torp-Pedersen, PA-forskning, och Charlotte Andersson, PA-forskning.

Abstract:

Background: Little is known about gender-differences in cardiovascular risk factors in overweight individuals.

Methods: Data from the Sibutramine Cardiovascular Outcomes (SCOUT) trial, a randomized, placebo-controlled multicenter study comparing sibutramine with placebo in cardiovascular high-risk patients was analyzed. The study endpoints comprised a composite of myocardial infarction, stroke, resuscitated cardiac arrest or cardiovascular death (primary outcomes event [POE]), and all-cause mortality, respectively.

Results: 9804 subjects were included, 5650 men and 4154 women. During a follow-up of 6 years and a mean treatment duration of 3.4 years 340(8%) women and 711(13%) men had a POE. Death occurred in 267(6%) women and 555(10%) men. Baseline: mean age 63.2(±6.1) years in both genders, 3589(86%) women and 4603(81%) men had diabetes, 2978(72%) women and 4970(88%) men had CVD. The most important cardiovascular risk factors for morbidity and mortality were age, diabetes, cigarette smoking, dyslipidaemia, increasing BMI, high levels of HbA1C and high levels of ACR. For the POE endpoint, gender differences were seen for age and BMI: women vs. men, adjusted hazard ratios 1.35(95% confidence interval 1.24-1.47) vs. 1.19(1.12-1.26) p=0.03 and 1.04(1.02-1.06) vs. 0.996(0.977-1.016) p=0.01 respectively. For the all-cause mortality endpoint gender differences were seen for HbA1C and ACR: women vs. men 1.29(1.19-1.40) vs. 1.14(1.07-1.22) p=0.02 and 1.81(1.55-2.10) vs. 1.27(1.10-1.46) p=0.001 respectively.

Conclusion: In overweight and cardiovascular high-risk individuals several risk factors were found to be of greater prognostic importance in women, compared with men. Despite their generally lower cardiovascular morbidity/mortality rates, they may still benefit as least as much as men from secondary prevention strategies.

Type I Hypersensitivity Reactions to Macrogols

Emily Cathrine Wenande, Stud.med. Allergy Clinic KAA-816, Gentofte University Hospital

Per Stahl Skov, Holger Mosbech, Lars K Poulsen, Lene Heise Garvey
Allergy Clinic KAA-816, Gentofte University Hospital; RefLab, Copenhagen; Allergy Center, Odense University Hospital

---

Abstract:

Objective
Macrogols or polyethylene glycols (PEGs) are hydrophilic polyethers, widely used in pharmaceutical, cosmetic, industrial preparations. Only few reports of hypersensitivity to macrogols are found in the literature.

We describe a 27-year-old atopic patient with severe hypersensitivity reactions to an intramuscular Depo-medrol® injection and peroral Balancid Novum® one week apart. The objective was to determine the cause of these reactions.

Method
A detailed anamnesis revealed macrogol to be the common factor between the hypersensitivity reactions. Histamine release test (HR-test), skin prick test (SPT) and provocation using various macrogol and non-macrogol-containing products were performed. Histamine release inhibition studies were conducted using the low molecular monomer (ethylene glycol) and dimer (diethylene glycol).
Results
SPT and HR-tests with Depo-medrol® (containing macrogol 3350), Balancid® (containing macrogol 6000) and macrogol containing creams and high molecular weight solutions were all positive. Conversely, SPT and HR-tests with other steroids, the low molecular weight monomer (ethylene glycol) and dimer (diethylene glycol) were negative. In inhibition studies preincubation with both the monomer and the dimer prevented basophil histamine release on exposure to high molecular weight macrogols.
Conclusions
Our test results combined with the patient's history of severe hypersensitivity symptoms in connection with macrogol exposure, point to an IgE-mediated mechanism. Symptoms were indiscriminate of exposure route, while chain length and dose appeared to be critical factors in eliciting allergic responses. Macrogol-induced histamine release was blocked by preincubation with ethylene glycol and diethylene glycol, indicating that only polymer antigenic determinants are able to cross-link cell bound IgE.

IMPACT OF EXERCISE TYPE AND DOSE ON PAIN IN KNEE OSTEOARTHRITIS: A SYSTEMATIC REVIEW AND META-ANALYSIS

Carsten Juhl, Forsknings- og udviklingsfysioterapeut, Fysioterapien & Ergoterapien, Medicinsk afdeling C, Forskningsenheden for Musculoskeletal Funktion og Fysioterapi, Institut for idræt og biomekanik, Syddansk Universitet, Odense

Robin Christensen†*, Ewa M Roos†, Weiya Zhang§, Hans Lund†

†Forskningsenheden for Musculoskeletal Funktion og Fysioterapi, Institut for idræt og biomekanik, Syddansk Universitet, Odense
*Parker instituttet: Musculoskeletal Statistiks Enhed, Københavns Universitets Hospital, Frederiksberg
§Academic Rheumatology, University of Nottingham, United Kingdom

---

Abstract:

PURPOSE:
To analyze the effect of exercise therapy programs aimed at reducing pain in patients with knee osteoarthritis (OA), identifying the most optimal exercise program characterized by number of supervised sessions, type of exercise, exercise intensity and duration of exercise sessions.

METHODS:
A systematic review and meta-analysis based on randomized controlled trials comparing any exercise therapy interventions with controls, using pain as outcome. Effect sizes were calculated as standardized mean differences (SMD). SMDs were combined by using a random effects meta-analysis model. Stratified analyses and meta-regression analyses were used to examine study-level covariates.

RESULTS:
Forty one trials with 3274 patients with knee OA comparing 48 interventions with controls were included. The pooled SMD for pain reduction was 0.48 [95% CI: 0.36; 0.60] in favor of exercise. Larger effect when using only one type of exercise compared to combined exercise programs with a statistically significant difference SMD= 0.43 [95% CI: 0.41; 0.71] (P=0.003). Pain reduction was significantly increased with a larger number of supervised exercise sessions (slope = 0.026, [95% CI: 0.01-0.05], I2=23%). Focusing on knee extensor strengthening only was statistically more efficacious compared to lower limb strengthening or strengthening the whole body (SMD: 0.72, 0.42 respectively, P=0.04).

CONCLUSION:
Exercise therapy was moderate effective in reducing pain in knee osteoarthritis. Exercise therapy programs focusing at one type of exercise are more efficacious than combined exercise programs. While the number of supervised sessions may enhance the benefits of the aerobic exercise, focusing on the quadriceps only, may increase benefits of resistance training.

REHABILITERINGS FORSKNING

Transfusion-associated Anaphylaxis

Gerda Lindsted, Stud.Med, Dansk Anæstesi Allergi Klinik (DAAC), Gentofte Hospital / Region Hovedstadens Blodbank, Rigshospitalet

Rune Larsen(1), Mogens Krøigaard(2), Lene Heise Garvey(2), Betina Sørensen(3), Lars K. Poulsen(2), Astrid Nørgaard(1)
1: Region Hovedstadens Blodbank, Rigshospitalet
2: Dansk Anæstesi Allergi Klinik (DAAC), Gentofte
3: KIA/Blodbanken, Skejby Universitets Hospital, Århus

Abstract:

Background:
Transfusion-associated anaphylaxis (TAA) is a severe complication, which may occur up to 4 hours after blood transfusion, and should be registered and classified by the haemovigilance system as defined by the International Society of Blood Transfusion and International Haemovigilance Network. The incidence of TAA in Denmark is 1:300.000 transfusions (Dansk Registering af transfusionsrisici/DART). According to international reviews the true incidence may be as high as 1:20.000-50.000 transfusions, suggesting insufficient registration of TAA in Denmark.

Objectives:
To identify cases of possible TAA, in relation to preoperative transfusions, and to characterize these clinically, by laboratory investigations and by comparison to control groups +/- confirmed allergy. To investigate whether cases of possible TAA were detected by the haemovigilance system.

Methods:
A retrospective study of 274 cases of suspected anaphylaxis during anesthesia and operation referred to The Danish Anesthesia Allergy Centre (DAAC) at Gentofte Hospital from 2003-2010. The cases were divided into the DAAC-positive group (n=123) with confirmed allergy, and the DAAC-negative group (n=151) with no confirmed allergy, based on the DAAC investigation. Data on transfusion were collected from all Danish Blood Banks.

Results:
All cases of possible TAA were identified in the DAAC-negative group (n=7; 35% of transfused subjects), in which transfusions also were more frequent ($p<0.05$). The frequency of elevated serum tryptase was higher among possible TAA cases than in the DAAC-negative group ($p=0.047$), but similar to the frequency in the DAAC-positive group ($p=0.351$). Only two cases were registered by the haemovigilance system.

Conclusion:
We identified 7 cases of possible TAA, of which 5 was not registered as transfusion complications. They resembled the DAAC-positive group by clinical symptoms and by elevated serum tryptase. Our findings support the hypothesis that TAA may not be sufficiently diagnosed and/or registered in Denmark.

KLINISK FORSKNING

High incidence of potentially virus-induced malignancies in systemic lupus erythematosus: A Danish long-term follow-up study

Lene Dreyer, Overlæge Ph.D., Reumatologisk Funktion, afdeling C, Gentofte Hospital

Mikkel Faurschou, Mette Mogensen, Søren Jacobsen. Dermatologisk afdeling, Gentofte Hospital. Reumatolgisk afdeling, Rigshospitalet

---

Abstract:

Objective:
Patients with systemic lupus erythematosus (SLE) seem to experience an increased prevalence of oncogenic virus infections. The aim of the present study was to investigate whether SLE patients have an increased risk of virus-associated malignancies, defined as malignancies potentially caused by virus infection.

Methods:
A hospital-based cohort of 576 SLE patients was linked to the Danish Cancer Registry. The cohort was followed for malignancies from date of SLE diagnosis, and standardized incidence ratios (SIRs) were calculated for various forms of cancer.

Results:
The median duration of follow-up was 13.2 years. Compared to the general population, the patients experienced an increased overall risk of cancer (SIR 1.6, 95% CI 1.2-2.0).
We observed an increased risk of virus-associated cancers combined (SIR: 2.9, 95% CI 2.0-4.1). Among human papilloma-virus (HPV)-associated malignant and premalignant conditions, high risks were found for anal cancer (SIR 26.9, 95% CI 8.7-83.4), vagina/vulva cancer (SIR 9.1, 95% CI 2.3-36.5), epithelial dysplasia/carcinoma in situ of the uterine cervix (SIR 1.8, 95% CI 1.2-2.7), and non-melanoma skin cancer (SIR 2.0, 95% CI 1.2-3.6). Increased SIRs were also found for other potentially virus-induced cancer types (liver cancer: 9.9, 95% CI 2.5-39.8; bladder cancer: 3.6, 95% CI 1.4-9.7; non-Hodgkin´s lymphoma: 5.0, 95% CI 1.9-13.3).

Conclusion:
The patients of the present SLE cohort experienced an increased risk of HPV-associated tumors and of other potentially virus-induced cancers during long-term follow-up. Our findings call for clinical alertness towards oncogenic virus-infections in SLE patients.

Preserved Postprandial GLP-1 Responses in Cholecystectomized Subjects: No Evidence of a Physiological Role of Gallbladder Emptying in Postprandial GLP- 1 Release

David Peick Sonne, Læge, PhD-studerende, Medicinsk Afdeling F, Diabetologisk Forskningsenhed, Gentofte Hospital

Kristine J. Hare: Medicinsk Afdeling F, Diabetologisk Forskningsenhed, Gentofte Hospital
Pernille C. Martens, Kathrine H. Hansen: Radiologisk afdeling, Gentofte Hospital
Jens J. Holst: Biomedicinsk Institut, Sundhedsvidenskabelige Fakultet, Københavns Universitet.
Jens Erik Rehfeld: Klinisk Biokemi, Rigshospitalet
Tina Vilsbøll: Medicinsk Afdeling F, Diabetologisk Forskningsenhed, Gentofte Hospital
Filip K. Knop: Medicinsk Afdeling F, Diabetologisk Forskningsenhed, Gentofte Hospital

---

Abstract:

Besides their well-established roles in dietary lipid absorption and cholesterol homeostasis, bile acids are increasingly being recognized for their function as metabolic regulators. Preclinical studies suggest that gallbladder emptying - via bile acid-induced activation of the G protein-coupled receptor TGR5 in intestinal L cells - plays a significant role in the secretion of the incretin hormone glucagon-like peptide-1 (GLP-1) and postprandial glucose homeostasis. We hypothesized that human gallbladder emptying potentiates postprandial release of GLP-1 and aimed to evaluate whether cholecystectomized patients exhibit impaired postprandial GLP-1 secretion.

Ten cholecystectomized subjects (age: 49±4 years (mean±SEM); BMI: 25±0.4 kg/m2; HbA1c: 5.9±0.1%) and 10 healthy age-, gender- and BMI-matched control subjects (age: 48±4 years; BMI: 24±0.5 kg/m2; HbA1c: 5.7±0.1%) were studied. None had any family history of diabetes and all had normal oral glucose tolerance according to 75 g-oral glucose tolerance test (OGTT). Subjects received a 2,200 kJ-standardized fat-rich liquid meal (with acetaminophen for evaluation of gastric emptying) during which blood samples were drawn and duodenal aspirate (for evaluation of intraduodenal bile acid concentrations) was collected through a duodenal tube placed fluoroscopically.

Similar fasting plasma glucose levels were observed in the two groups (5.4±0.1 (mean±SEM) vs. 5.2±0.1 mM, P=0.2) whereas postprandial plasma glucose (PPG) excursions were exaggerated in the cholecystectomized group compared to control subjects (1,431±31 vs. 1,313±36 mM×240 min, P=0.023). Similar fasting plasma GLP-1 concentrations were observed in the two groups, and subjects without a gallbladder exhibited preserved postprandial responses of GLP-1 compared to the carefully matched healthy control subjects (3,707±400 vs. 3,165±287 pM×240 min, P=0.29).

In conclusion, cholecystectomized subjects exhibit preserved postprandial GLP-1 responses suggesting that the physiologically important role of gallbladder emptying for postprandial GLP-1 release indicated by preclinical studies is of less importance in humans. Thus, the physiological relevance of potentiation of GLP-1 release via bile acid-induced activation of TGR5 in small intestinal L cells is still questionable in humans.

KLINISK FORSKNING

Body mass index is inversely correlated to risk of definite stent thrombosis after percutaneous coronary intervention irrespective of stent type - a register-based study

Michelle Schmiegelow, Stud.med., yngre forsker, PA-forskning, kardiologisk afd. P

Christian Torp-Pedersen(1) , Gunnar H. Gislason (1), Charlotte Andersson(2), Sune Pedersen (2), Peter R. Hansen(1)
(1) Kardiologisk afd. P, Gentofte Hospital
(2) Kardiologisk afd. H, Hillerød Hospital

Abstract:

Purpose:
Stent thrombosis is a devastating complication of percutaneous coronary intervention (PCI). We examined if increasing body mass index (BMI) was a predictor of definite stent thrombosis after PCI, and whether this relationship was influenced by the stent type, i.e. bare metal stent (BMS) vs. drug-eluting stent (DES).

Methods:
We followed 5816 patients who underwent PCI with implantation of at least one BMS or DES at Gentofte University Hospital in the period 2000-2006. Only patients with one and the same type of stent (BMS or DES) implanted at the index PCI were included. Definite stent thrombosis was defined as myocardial infarction with acute or sub acute PCI in the coronary segment with the index stent(s). Multivariable Cox proportional-hazard models were used to estimate the risk of definite stent thrombosis. Analyses were performed with BMI as a continuous variable. In additional analyses the impact of stent type (BMS vs. DES) was investigated.

Results:
The median follow-up period was 27 (interquartile range 12-46) months and definite stent thrombosis occurred in 78 patients. The hazard ratio of definite stent thrombosis adjusted for number of stents at the index PCI was 0.90 (95% confidence interval 0.85-0.96) for each unit increase in BMI (kg/m2). There was no interaction between stent type and BMI (p=0.18). Lipid-lowering drugs were significantly associated with a 50% risk reduction and diabetes with a doubling in the risk of definite stent thrombosis.

Conclusions:
BMI was inversely correlated to the risk of definite stent thrombosis after PCI irrespective of stent type.

Forskningens Dag 2011

POSTERE

REGION

Pathophysiological implications of the incretin hormones in patients with liver disease with and without diabetes.

Anders Ellekær Junker, Læge og Ph.D.-studerende, Diabetologisk Forskningsenhed, Afd. F

Filip Krag Knop, Lise Lotte Gluud, Tina Vilsbøll (Medicinsk Afdeling F)

Abstract:

Titel: Pathophysiological implications of the incretin hormones in patients with liver disease with and without diabetes.

Background: The liver plays an important part in the blood glucose homeostasis and maintaining stable blood glucoses. Less severe liver diseases such as non alcoholic fatty liver disease (NAFLD) and non alcoholic steatohepatitis may be associated with impaired glucose tolerance, elevated insulin levels and development of diabetes. It is estimated that up to 40% of the general population has NAFLD. Accumulation of triglycerides in hepatocytes is believed to be the first step in the development of NAFLD. Glucagon-like peptide-1 (GLP-1) receptors have recently been found in the hepatocytes, and preclinical studies suggest that GLP-1 is able to reduce hepatic triglyceride accumulation. However the importance of the incretin hormones for the pathophysiology behind the development of liver disease is unresolved.

Aim: To analyse the pathophysiological implications of the incretin hormones Glucagon-like-peptide-1 (GLP-1) and Glucose-dependent-insulinotropic-peptide (GIP) in patients with liver disease (NAFLD and cirrhosis) with and without diabetes compared with healthy controls.

Method: Five groups of 10 subjects will be examined: 1) patients with normal glucose tolerance and NAFLD, 2) patients with type 2 diabetes and NAFLD, 3) patients with type 2 diabetes without NAFLD, 4) patients with cirrhosis (with or without diabetes) and 5) healthy subjects with no history of diabetes (matched for gender, age and BMI). The incretin effect will be assessed by comparing a 75-g oral glucose tolerance test (OGTT) with an isoglycaemic intravenous glucose infusion (IIGI). The main outcome measures include assessment of the incretine effect, the endocrine pancreatic function (glucagon and insulin), and the secretion of GLP-1 and GIP. The present study will contribute significantly to the understanding of the pathophysiology of liver disease and glucose metabolism. The final goal is that the results could pave the way for new treatment modalities for patients with liver disease.

KLINISK EKSPERIMENTEL FORSKNING

Patient adherence to evidence-based pharmacotherapy in heart failure and the transition of follow-up from specialized heart failure outpatient clinics to primary care – a nationwide study.

Anne Gjesing, Stud.med., PA-forskning, afd. P.

Morten Schou MD, PhD, Kardiologisk og Endokrinologisk afdeling, Hillerød Sygehus; Christian Torp-Pedersen MD, DMSc, Kardiologisk afdeling, Gentofte Hospital; Lars Køber MD, DMSc, Kardiologisk afdeling, Hjertecenteret, Rigshospitalet; Finn Gustafsson MD, DMSc, Kardiologisk afdeling, Hjertecenteret, Rigshospitalet; Per Hildebrandt MD, DMSc, Kardiologisk og Endokrinologisk afdeling, Frederiksberg Hospital; Lars Videbæk MD, DMSc5, Kardiologisk Afdelingen, Odense Universitets Hospital; Henrik Wiggers MD, DMSc, Kardiologisk afdeling, Aarhus univeritetshospital, Skejby; Anne-Marie Scherling Olsen MD, Kardiologisk afdeling, Gentofte Hospital; Gunnar H. Gislason MD, PhD, Kardiologisk afdeling, Gentofte Hospital.

Abstract:

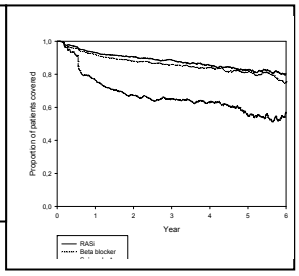
Purpose: Proven medical therapy for heart failure (HF) is given to too few patients and in too low doses. It is hoped that specialized HF clinics can improve treatment initiation and correct dosing, but the subject has not been studied systematically.

Methods: We studied initiation, persistence and dose pattern in patients attending HF clinics in Denmark from 2002 to 2009. Information was obtained from the electronic patient file- and research database Hjerterplus and combined with prescription data from the Danish Registry of Medical Product Statistics.

Results: A total of 10.533 patients were included in the study. Long-term adherence to treatment was high for RASi and beta-blockers (figure), and kept high after the patients were discharged to long-term follow up by their primary care physician. Within 365 days after discharge, adherence was it 89.8% (3010 patients) for beta-blockers, 89.5% (3268 patients) for RASi and 72.1% (1058 patients) for Spironolactone. Patients were up-titrated in the recommended medication and came close to target dose.

Conclusions: In a specialized heart failure clinic initiation, adherence and dosing of renin-angiotensin system inhibitors and beta-blockers is close to optimal. The high degree of adherence to the treatment and the close to recommended drug-doses is likely to provide long-term benefits for the patients.

Long-term adherence with RASi, β-blocker and Spironolactone in patients with HF: the proportion of patients alive who were on treatment on each day



EPIDEMIOLOGISK FORSKNING

Cause-specific Cardiovascular Risk Associated with use of Nonsteroidal Anti-inflammatory Drugs among Patients with Prior Myocardial Infarction - A Nationwide Study.

Anne-Marie Schjerning Olsen, MD ph.d. studerende, Afd. P

Emil L. Fosbøl MD, PhD1,3, Jesper Lindhardsen MD1, Fredrik Folke MD,PhD1, Mette Charlot MD 1, Christian Selmer MD1, Morten Lamberts MD1, Jonas Bjerring Olesen, MD1, Lars Køber MD, DMSc2; Peter R. Hansen MD, PhD, DMSc1,Christian Torp-Pedersen MD, DMSc1, Gunnar H. Gislason MD, PhD1.
1=Department of Cardiology, Copenhagen University Hospital, Gentofte, Denmark
2=Department of Cardiology, the Heart Centre, Copenhagen University Hospital, Rigshospitalet, Denmark
3=Duke Clinical Research Institute, Duke University Medical Center, Durham, NC, USA

Abstract:

Background: Prior studies have reported an increased cardiovascular risk with most non-steroidal anti-inflammatory drugs (NSAIDs) in patients with myocardial infarction (MI), but little is known about the cause-specific risk according to treatment duration.

Methods: By individual-level-linkage of nationwide registries of hospitalization and drug dispensing from pharmacies in Denmark, patients aged ≥30 years admitted with first-time MI during 1997-2006 and their subsequent NSAID use were identified. The risk of, a composite endpoint of cardiovascular death, nonfatal MI or nonfatal stroke associated with NSAID use was analyzed by Cox proportional hazard analyses stratified by treatment duration.

Results: Of 83,356 patients included (mean age 68 years [SD 13]; 67 % men); 42% claimed NSAIDs during follow- up. There were 23,505 CVD/Re-MIs. Overall NSAID utilization was associated with increased risk of the combined endpoint with a Hazard ratio (HR) of 1.44 (95% confidence intervals [CI] 1.25- 1.66) from start of treatment. The risk associated with use of diclofenac was increased at start of treatment, HR 3.25 (95% CI 2.63-4.01), whereas the selective COX-2 inhibitor rofecoxib was associated with increased risk after 14 days of treatment, HR 2.36 (95% CI 1.68-3.33).Naproxen was also associated with increased risk from the beginning, but the risk decreased afterwards(Figure).

Conclusion: Use of most NSAIDs was associated with increased cardiovascular risk after short time treatment. In particular rofecoxib and diclofenac were associated with early increased cardiovascular morbidity and mortality. These results support caution in use of NSAIDs in patients with prior MI.

The role of γδ T cells in human skin and blood

Beatrice Dyring-Andersen, Læge, ph.d. studerende, Dermato-allergologisk afd. K

Marianne B. Løvendorf, Dermato-allergologisk afd, Gentofte Hospital, Jens Peter Holst Lauritsen, Carsten Geisler, Charlotte Menne Bonefeld, Institut for International Sundhed, Immunologi og Mikrobiologi, KU
Michael Bzorek, Patologisk afdeling, Næstved
Sally Dabelsteen, Odontologisk Institut, Panum

Abstract:

Background
γδ T cells have a broad functional spectrum with ability to initiate and regulate the immune response. Residing at the interface between organism and environment, γδ T cells contribute in the process of immune defense in epithelia. The role of γδ T cells in relation to inflammatory skin diseases in humans is relatively unknown.

Objective
This study was designed to gain more information about the role of γδ T cells in humans and to examine the prevalence, phenotype and function of γδ T cells in skin and blood in relation to inflammatory skin diseases.

Methods
Blood samples and biopsies were taken from patients with psoriasis (N=9), patients with nickel allergy (N=9) and healthy controls (N=11).
Flow cytometry analysis of PBMC was performed using surface (CD4, CD8, γδ) and intracellular (IL-17, IL-22 or IFN-γ) stainings. Cytokine profiles in the plasma were examined by Diaplex FACS analysis. Skin biopsies are currently being analyzed by qPCR, immunohistochemical staining and cell cultures.

Results
There is a broad spectrum of T cells homing to the skin (CLA+), including CD4+, CD8+ and γδ T cells. When analysing cytokine production in the T cells we found that psoriasis patients have fewer IFN-γ+ CLA+ γδ T cells (39.8±26.1%, P=0.03) compared to healthy controls. In patients with psoriasis a tendency to fewer IL-17 producing γδ T cells (2.7 ±1.3%, P=0.07) in the blood compared to healthy controls were also seen. In contrast, the amount of IL-22 producing γδ T cells did not seem to differ between the three groups.

Conclusion
The reduced number of IFN-γ+ CLA+ γδ T cells seen in the blood from psoriasis patients compared to healthy controls is likely to be due to an accumulation of these cells in the inflammatory areas of the skin and we are currently investigating this hypothesis in skin biopsies from patients and healthy controls .

KLINISK EKSPERIMENTEL FORSKNING

Conflicting evidence for human basophils as antigen presenting cells

Britta C. Poulsen, Ph.d.-studerende, Dermato-allergologisk afd. K, Allergiklinikken

Poulsen, Britta C.1,2, Blom, Lars1, Jensen, Bettina M.1, Poulsen, Lars K1.
1) Dermato-Allergological Dept. K, CUH-Gentofte, Copenhagen, Denmark
2) Department of Veterinary Disease Biology, Faculty of Life Sciences, University of Copenhagen, Copenhagen, Denmark

---

Abstract:

The aim of this study was to investigate whether human basophils express MHC class II, internalize antigen, and induce a CD4+ T-cell proliferative response.

Basophils and CD4+ T-cells were purified from peripheral blood mononuclear cells (PBMC). Total histamine content was measured in the CD4+ T-cells as readout of contaminating basophils. PBMCs were used for flow cytometry, where basophils (FceRIα+CD3-CD14-CD19-CD56-) were analysed for MHC class II expression using three different antibodies. Purified basophils, were cultured with Streptavidin-PE ± IL-3 (10 ng/ml) and incubated at either 4 °C or 37 °C for 1 h or 3 h, and subsequently analysed by flow cytometry. CFSE stained CD4+ T-cells, were cultured with Gad c 1 (50 µg/ml), ± basophils (10:1). Proliferation of the CD4+ T-cells was analysed by flow cytometry after 7 days.

Using an antibody specific for all three MHC class II subtypes (HLA-DR, -DP, and –DQ), significant higher amount of MHC class II+ basophils were detected compared to antibodies specific for HLA-DR only. However, a significant difference was also observed between the HLA-DR specific antibodies. In two out of four donors basophils showed up-take of Streptavidin-PE after 3 h at 37 °C if IL-3 was present. However, basophils were not able to induce proliferation of T-cells in co-cultures.

Dependent on the antibody used, a subset of human basophils could be detected as MHC class II+, however, we were not able to define experimental conditions in which basophils were reproducibly able to take up antigen, and in our hands, human basophils were not able to induce a proliferative response in CD4+ T-cells.

Initiation and Persistence with Warfarin Therapy in Atrial Fibrillation According to Ethnicity

Carolina Malta Hansen, Læge, Ph.D.-studerende, Kardiologisk afdeling P

Jonas Bjerring Olsen (kardiologisk afdeling), Morten Lock-Hansen (kardiologisk afdeling), Aziza Azimi (kardiologisk afdeling), Christian Torp-Pedersen (kardiologisk afdeling), Helena Dominguez(Kardiologisk afdeling, Herlev Hospital)

Abstract:

Aims
To investigate initiation and persistence with warfarin treatment in patients with atrial fibrillation according to ethnicity and to identify possible underuse in certain ethnic groups.

Methods
Patients hospitalized with first-time atrial fibrillation from 1997-2009, prescription claims of VKA and country of birth were identified by individual-level linkage of nationwide administrative agencies. Cox proportional hazards models were used to estimate the relationship between covariates affecting initiation and non-persistence with VKA treatment.

Results
A total of 151,537 patients were included in the study and 5,061(3.3%) were of non-Danish origin. CHADS2score distribution varied substantially according to ethnicity, the proportion of patients with CHADS2score≥1 being 79.2%, 78.1%, 65.9% and 46.0% for patients of Danish, Western, Eastern and African origin, respectively. 79,239(52.4%) of all patients initiated treatment. Of those who initiated treatment, 26,769(33.8%) initiated before admission, 31,973(40.3%) did so within the first seven days after discharge and 20,497(25.9%) more than seven days after discharge. Multivariable Cox proportional hazard analyses indicated patients of Eastern and African origin were less likely to initiate warfarin therapy (HR 0.75; 95% CI 0.69-0.82 and HR 0.58; 95% CI 0.44-0.76, respectively). Patients of Eastern origin were more likely to interrupt treatment (HR 1.23 95% CI 1.02-1.47; for all patients; HR 1.62 95% CI 1.22-2.16; for patients with CHADS2score>1). African origin was associated with a trend to interrupt treatment (HR 1.44 95% CI 0.46-4.47; for patients with CHADS2score>1).

Conclusion
Initiation and persistence with warfarin in atrial fibrillation patients is lower among patients of Eastern and African origin compared to patients of Danish origin. This study suggests these subgroups might benefit from greater focus to establish proper anticoagulation treatment in order to prevent thromboembolic events.

EPIDEMIOLOGISK FORSKNING

PREDICTORS OF ADHERENCE TO ORAL BISPHOSPHONATE THERAPY: A Register-Based National Open Cohort STUDY

Carrinna Hansen, Ph.d.-studerende, Medicinsk afd. C

Bo Abrahamsen, Afd. F, Gentofte Hospital, Niels Andersens Vej 65, 2900 Hellerup
Birthe D. Pedersen, Enheden for Sygeplejeforskning, Klinisk Institut, Syddansk Universitet, Campusvej 55, 5230 Odense.
Hanne Konradsen, Forskningsenheden, Gentofte Hospital, Niels Andersens Vej 65, 2900 Hellerup.

Abstract:

Aim: To assess adherence to oral bisphosphonates and determine what predicts early cessation of treatment. We hypothesized that patients who stopped treatment very early would differ from other patients with poor adherence.

Methods: National registers were used to include patients beginning alendronate in a ten-year period 1996 to 2005. Patients were classified as either compliant and persistent (MPR≥80%: first two years on treatment, group A), as patients who persisted with treatment for longer than 6 month but had low refill compliance (MPR<80%, group B) or as patients who stopped therapy early (≤ 84 DDD: first 6 month and no prescriptions filled in the remaining period, group C).

Results: The study population consisted of 2,962 men and 18,236 women, mean age 68.6 years. By multiple logistic regression, poor adherence (groups B+C vs. group A) was significantly, but weakly predicted by the number of comedications($p<0.001$), use of proton pump inhibitors($p<0.05$) or H2-antagonists($p<0.01$) and younger age ($p<0.01$) but not by gender($p=0.23$), comorbidity index($p=0.28$) or the use of prednisolone ($p=0.52$). In the patients with poor adherence (group C) was weakly associated with higher age ($p<0.01$), use of proton pump inhibitors ($p<0.01$) and no use of prednisolone ($p<0.05$).

Conclusions: This register-based study revealed that patients with poor adherence differ only slightly in baseline from patients with good adherence. Quitting treatment early was slightly more frequent with increasing age and in patients taking proton pump inhibitors. These findings suggest that other factors - such as patient understanding and socioeconomics may be more important determinants of adherence to osteoporosis treatment.

Thyroid Function and Risk of Atrial Fibrillation

Christian Selmer, Ph.D. Studerende, Kardiologisk Afdeling PA Forskning

Gunnar H. Gislason, Kard. Afd. PA

Abstract:

Background: It is still debated if subclinical thyroid disease or “high-normal” thyroid function is a risk-factor for atrial fibrillation (AF).

Objectives: To examine the long-term risk of AF in a large cohort of primary care patients who underwent routine thyroid screening.

Methods: Patients consulting their general practitioner from 2000–2009 in Copenhagen, Denmark, who had routine thyroid screening, were identified by individual-level linkage of nationwide registries. Patients with a history of thyroid disease, AF or related medication were excluded. Risk of AF was analysed using cumulative incidence plots and multivariable Poisson regression.

Results: From 554,334 individuals in the study population, we identified a total of 527,379 (95.0%) euthyroid patients: 2,229 (0.4%) patients with clinical hypothyroidism, 13,282 (2.4%) with subclinical hypothyroidism, 4,599 (0.8%) with clinical hyperthyroidism and 6,849 (1.2%) with subclinical hyperthyroidism (mean age 51.7 years [SD ±18.0]; 39.5% males). Cumulative incidence of AF is shown in Fig. 1. Clinical and subclinical hyperthyroidism was associated with significantly increased risk of new-onset AF compared to the general population (Incidence Rate Ratios [IRR] 1.6; 95% confidence interval [CI] 1.4–1.8) and IRR 1.34 [1.23–1.46], respectively). Clinical hypothyroidism was associated with a lower risk of AF compared to the euthyroid population (IRR 0.7 [0.5–0.8]). No increased risk of AF was seen in the group with “high-normal” thyroid function.

Conclusion: Clinical hypothyroidism seems to protect against AF and “high-normal” thyroid function is not a risk-factor for AF. The study also confirms that subclinical hyperthyroidism is associated with AF.

Long-term outcomes and prognostic importance of individual risk-factors in overweight and obese men and women with diabetes and cardiovascular disease: data from a large clinical trial (SCOUT).

Cu Dinh Nguyen, Forskningsårsstuderende, Kardiologisk afdeling, PA-forskning, Gentofte Hospital

Christian Torp-Pedersen, PA-forskning, och Charlotte Andersson, PA-forskning.

Abstract:

Background: Little is known about gender-differences in cardiovascular risk factors in overweight individuals.

Methods: Data from the Sibutramine Cardiovascular Outcomes (SCOUT) trial, a randomized, placebo-controlled multicenter study comparing sibutramine with placebo in cardiovascular high-risk patients was analyzed. The study endpoints comprised a composite of myocardial infarction, stroke, resuscitated cardiac arrest or cardiovascular death (primary outcomes event [POE]), and all-cause mortality, respectively.

Results: 9804 subjects were included, 5650 men and 4154 women. During a follow-up of 6 years and a mean treatment duration of 3.4 years 340(8%) women and 711(13%) men had a POE. Death occurred in 267(6%) women and 555(10%) men. Baseline: mean age 63.2(±6.1) years in both genders, 3589(86%) women and 4603(81%) men had diabetes, 2978(72%) women and 4970(88%) men had CVD. The most important cardiovascular risk factors for morbidity and mortality were age, diabetes, cigarette smoking, dyslipidaemia, increasing BMI, high levels of HbA1C and high levels of ACR. For the POE endpoint, gender differences were seen for age and BMI: women vs. men, adjusted hazard ratios 1.35(95% confidence interval 1.24-1.47) vs. 1.19(1.12-1.26) p=0.03 and 1.04(1.02-1.06) vs. 0.996(0.977-1.016) p=0.01 respectively. For the all-cause mortality endpoint gender differences were seen for HbA1C and ACR: women vs. men 1.29(1.19-1.40) vs. 1.14(1.07-1.22) p=0.02 and 1.81(1.55-2.10) vs. 1.27(1.10-1.46) p=0.001 respectively.

Conclusion: In overweight and cardiovascular high-risk individuals several risk factors were found to be of greater prognostic importance in women, compared with men. Despite their generally lower cardiovascular morbidity/mortality rates, they may still benefit as least as much as men from secondary prevention strategies.

Preserved Postprandial GLP-1 Responses in Cholecystectomized Subjects: No Evidence of a Physiological Role of Gallbladder Emptying in Postprandial GLP- 1 Release

David Peick Sonne, Læge, PhD-studerende, Medicinsk Afd. F, Diabetologisk Forskningsenhed

Kristine J. Hare: Medicinsk Afdeling F, Diabetologisk Forskningsenhed, Gentofte Hospital
Pernille C. Martens, Kathrine H. Hansen: Radiologisk afdeling, Gentofte Hospital
Jens J. Holst: Biomedicinsk Institut, Sundhedsvidenskabelige Fakultet, KU
Jens Erik Rehfeld: Klinisk Biokemi, Rigshospitalet
Tina Vilsbøll: Medicinsk Afdeling F, Diabetologisk Forskningsenhed, Gentofte Hospital
Filip K. Knop: Medicinsk Afdeling F, Diabetologisk Forskningsenhed, Gentofte Hospital

---

Abstract:
Besides their well-established roles in dietary lipid absorption and cholesterol homeostasis, bile acids are increasingly being recognized for their function as metabolic regulators. Preclinical studies suggest that gallbladder emptying - via bile acid-induced activation of the G protein-coupled receptor TGR5 in intestinal L cells - plays a significant role in the secretion of the incretin hormone glucagon-like peptide-1 (GLP-1) and postprandial glucose homeostasis. We hypothesized that human gallbladder emptying potentiates postprandial release of GLP-1 and aimed to evaluate whether cholecystectomized patients exhibit impaired postprandial GLP-1 secretion.

Ten cholecystectomized subjects (age: 49±4 years (mean±SEM); BMI: 25±0.4 kg/m2; HbA1c: 5.9±0.1%) and 10 healthy age-, gender- and BMI-matched control subjects (age: 48±4 years; BMI: 24±0.5 kg/m2; HbA1c: 5.7±0.1%) were studied. None had any family history of diabetes and all had normal oral glucose tolerance according to 75 g-oral glucose tolerance test (OGTT). Subjects received a 2,200 kJ-standardized fat-rich liquid meal (with acetaminophen for evaluation of gastric emptying) during which blood samples were drawn and duodenal aspirate (for evaluation of intraduodenal bile acid concentrations) was collected through a duodenal tube placed fluoroscopically.

Similar fasting plasma glucose levels were observed in the two groups (5.4±0.1 (mean±SEM) vs. 5.2±0.1 mM, P=0.2) whereas postprandial plasma glucose (PPG) excursions were exaggerated in the cholecystectomized group compared to control subjects (1,431±31 vs. 1,313±36 mM×240 min, P=0.023). Similar fasting plasma GLP-1 concentrations were observed in the two groups, and subjects without a gallbladder exhibited preserved postprandial responses of GLP-1 compared to the carefully matched healthy control subjects (3,707±400 vs. 3,165±287 pM×240 min, P=0.29).

In conclusion, cholecystectomized subjects exhibit preserved postprandial GLP-1 responses suggesting that the physiologically important role of gallbladder emptying for postprandial GLP-1 release indicated by preclinical studies is of less importance in humans. Thus, the physiological relevance of potentiation of GLP-1 release via bile acid-induced activation of TGR5 in small intestinal L cells is still questionable in humans.

EPIDEMIOLOGISK FORSKNING

Type I Hypersensitivity Reactions to Macrogols

Emily Cathrine Wenande, Stud.med., Allergy Clinic KAA-816, Gentofte University Hospital

Emily Cathrine Wenande1, Per Stahl Skov123, Holger Mosbech1, Lars K Poulsen1, Lene Heise Garvey1
1Allergy Clinic KAA-816, Gentofte University Hospital; 2RefLab, Copenhagen; 3Allergy Center, Odense University Hospital

---

Abstract:

Objective
Macrogols or polyethylene glycols (PEGs) are hydrophilic polyethers, widely used in pharmaceutical, cosmetic, industrial preparations. Only few reports of hypersensitivity to macrogols are found in the literature.

We describe a 27-year-old atopic patient with severe hypersensitivity reactions to an intramuscular Depo-medrol® injection and peroral Balancid Novum® one week apart. The objective was to determine the cause of these reactions.

Method
A detailed anamnesis revealed macrogol to be the common factor between the hypersensitivity reactions. Histamine release test (HR-test), skin prick test (SPT) and provocation using various macrogol and non-macrogol-containing products were performed. Histamine release inhibition studies were conducted using the low molecular monomer (ethylene glycol) and dimer (diethylene glycol).

Results
SPT and HR-tests with Depo-medrol® (containing macrogol 3350), Balancid® (containing macrogol 6000) and macrogol containing creams and high molecular weight solutions were all positive. Conversely, SPT and HR-tests with other steroids, the low molecular weight monomer (ethylene glycol) and dimer (diethylene glycol) were negative. In inhibition studies preincubation with both the monomer and the dimer prevented basophil histamine release on exposure to high molecular weight macrogols.

Conclusions
Our test results combined with the patient's history of severe hypersensitivity symptoms in connection with macrogol exposure, point to an IgE-mediated mechanism. Symptoms were indiscriminate of exposure route, while chain length and dose appeared to be critical factors in eliciting allergic responses. Macrogol-induced histamine release was blocked by preincubation with ethylene glycol and diethylene glycol, indicating that only polymer antigenic determinants are able to cross-link cell bound IgE.

Transfusion-associated Anaphylaxis

Gerda Lindsted, Stud.Med, Dansk Anæstesi Allergi Klinik (DAAC), Gentofte Hospital / Region Hovedstadens Blodbank, Rigshospitalet

Rune Larsen(1), Mogens Krøigaard(2), Lene Heise Garvey(2), Betina Sørensen(3), Lars K. Poulsen(2), Astrid Nørgaard(1)
1: Region Hovedstadens Blodbank, Rigshospitalet
2: Dansk Anæstesi Allergi Klinik (DAAC), Gentofte
3: KIA/Blodbanken, Skejby Universitets Hospital, Århus

Abstract:

Background:
Transfusion-associated anaphylaxis (TAA) is a severe complication, which may occur up to 4 hours after blood transfusion, and should be registered and classified by the haemovigilance system as defined by the International Society of Blood Transfusion and International Haemovigilance Network. The incidence of TAA in Denmark is 1:300.000 transfusions (Dansk Registering af transfusionsrisici/DART). According to international reviews the true incidence may be as high as 1:20.000-50.000 transfusions, suggesting insufficient registration of TAA in Denmark.

Objectives:
To identify cases of possible TAA, in relation to preoperative transfusions, and to characterize these clinically, by laboratory investigations and by comparison to control groups +/- confirmed allergy. To investigate whether cases of possible TAA were detected by the haemovigilance system.

Methods:
A retrospective study of 274 cases of suspected anaphylaxis during anesthesia and operation referred to The Danish Anesthesia Allergy Centre (DAAC) at Gentofte Hospital from 2003-2010. The cases were divided into the DAAC-positive group (n=123) with confirmed allergy, and the DAAC-negative group (n=151) with no confirmed allergy, based on the DAAC investigation. Data on transfusion were collected from all Danish Blood Banks.

Results:
All cases of possible TAA were identified in the DAAC-negative group (n=7; 35% of transfused subjects), in which transfusions also were more frequent ($p<0.05$). The frequency of elevated serum tryptase was higher among possible TAA cases than in the DAAC-negative group ($p=0.047$), but similar to the frequency in the DAAC-positive group ($p=0.351$). Only two cases were registered by the haemovigilance system.

Conclusion:
We identified 7 cases of possible TAA, of which 5 was not registered as transfusion complications. They resembled the DAAC-positive group by clinical symptoms and by elevated serum tryptase. Our findings support the hypothesis that TAA may not be sufficiently diagnosed and/or registered in Denmark.

KLINISK & EPIDEMIOLOGISK FORSKNING

Continued Tocilizumab infusion for Rheumatoid Arthritis is well tolerated and safe at an accelerated infusion rate.

Gunhild Bukh, Sussi Larsen, Susse Skalsted Rasmussen – sygeplejersker, Reumatologisk ambulatorium C2A

Gunhild Bukh, Sussi Larsen, Susse Skalsted Rasmussen, Michael Sejer Hansen

---

Abstract:

Background: Rheumatoid arthritis (RA) is a chronic systemic disease related to progressive disability and an increased mortality compared to the general population. New therapies are needed and one promising candidate is Tocilizumab ® that binds specifically to the IL-6 receptor. This treatment is given every four week over one hour, and is quit time-consuming over time. No serious infusion-reactions have been reported after the 5th infusion.
The purpose of our study was to evaluate if an accelerated infusion-rate of Tocilizumab after the 5th infusion would be as safe and tolerable for RA patients as the conventional infusion regiment. The reduced infusion-time is comparable with the reduced time used for infliximab ® infusion at our department after the 10th infusion.

Methods: The present study was conducted consecutively for RA patients allocated to treatment with Tocilizumab. Fifty RA patients have received Tocilizumab-infusion at our Department since 2005.
21 have stopped Tocilizumab treatment. 9 due to lack of efficacy, 5 patients due to adverse events, 4 due to remission and 3 lost to follow-up. Twenty-nine patients are still successfully treated with Tocilizumab; 4 with the recommending Tocilizumab-infusion procedure (1 hour/infusion) and 3 patients in a RCT (ActRay) study. The study population is thereafter comprised of 22 patients and was treated with Tocilizumab at an accelerated infusion rate (30 minutes/infusion). These patients are characterized as: 17 F/ 5 M, median age 55 years (range 27-77), disease duration 11 years (2-45), positive IgM-RF or anti-CCP: 18 (85%), DAS28CRP 5.5 (2.7-7.2), HAQ-score 1.5 (0.0-2.375), number of previous DMARDs 2.3 (0-8), number of previous biologics 2.3 (0-5). 18 patients were on concomitant DMARDs (15 Methotrexate, 2 Azathioprine) and 1 Sulfasalazin.
Tocilizumab was given at a dose of 8 mg/kg/100 ml isot NaCl during one hour for infusion number 1 – 5, and from infusion 6 and thereafter at the same dosage during 30 minutes.
During the infusion period, the patients were monitored with blood pressure, pulse, temperature, respiration and registration of any kind of side effects according to the CTC grading system.

Results: 321 Tocilizumab infusions at an accelerated infusion rate of 30 minutes/infusion were given to 22 patients (median 5 (range 1-27) infusions/patient) with only a small number of side-effects. One patient had had a serious adverse event after the 23rd ½-hour infusion and has been treated for septicaemia. Result unresolved. One patient got dizzy and nausea after the 31st ½-hour infusion. This side effect was resolved by increasing the infusion time to one hour. No long term side effects were found for any of the treatment regimens.
Conclusions: The patients with RA were satisfied and comfortable with an accelerated time-sparing infusion regimen as well as the health professionals. No unexpected adverse events were recorded. These results have led to a change in our routine management of Tocilizumab infusions.

ANDET FORSKNING

Sygepleje til patienter med atrieflimmer

Helle L. Hoff, Sygeplejerske, Gentofte Hospital afd. P-413

Vejleder: PhD. Dorthe Overgaard

Abstract:

Baggrund:
Atrieflimmer er den hyppigste og mest indlæggelses krævende arytmi. Litteraturen peger på at det for mange af denne gruppe patienter, kan være forbundet med mange bekymringer og for nogle påvirket livskvalitet.

Problemformulering:
Hvilken betydning har den afsluttende samtale for patienter indlagt til D.C konvertering på deres livskvalitet og mestringsevne.

Metode/design:
Metoden til projektet vil være en kvantitativ metode. Hvor den afsluttende samtale er interventionen.
Antonovskys 13 punkts spørgeskema(se bilag 1) vil blive anvendt til at indsamle data til vurdering af patienternes mestringsevne udfra begrebet sense ofcoherence (OAS). Til vurdering af patientens QoL bruges en LAS (Lineær analog scale). Der vil være 30 deltagere.

Analysestrategi:
Data vil blive analyseret via Analyseprogrammet SSPS version 19. Der laves middelværdier og gennemsnit til belysning af data og baggrundsvariabler vurderes i forhold til data.

Nøgleord:
Atrial Fibrillation, nursing, coping, knowledge, quality of life , cardioversion

Konklusion:
Projektmetode og afvikling er under vurdering mhp start efteråret 2011.

Mundstatus og behov for mundpleje blandt patienter akut indlagt med medicinsk sygdom

Ingelise Trosborg og Linda Christensen, Klinisk udviklingssygeplejersker, afd. Y og I

Ingelise Trosborg1, Linda Christensen2, Hanne Konradsen 3, Preben Ulrich Pedersen4
1Lungemedicinsk afdeling, Intensiv2, HR Forskningsenheden3 og Arhus Universitet4

Abstract:

Formålet med dette studie var at undersøge prævalencen af behov for mundpleje blandt akut indlagte medicinske patienter

Relationer findes mellem over 100 forskellige diagnoser og mundstatus, men behovet for mundpleje hos akut indlagte er ukendt.

Måleinstrumentet Revised Oral Assessment Guide (ROAG) blev oversat til dansk og anvendt i et cross-sectional studie på 2 afdelinger på et dansk universitetshospital.

Inkluderet blev alle patienter akut indlagt på hverdag, som kunne afgive informeret samtykke og som havde en forventet indlæggelsestid over 48 timer (n=161). Data blev analyseret deskriptivt i forhold til de enkelte elementer i ROAG.
91 % af patienterne have 1 eller flere behov for mundpleje. De mest udbredte var urene tænder, ødelagte tænder eller proteser, mundtørhed eller ændret mundslimhinde. Der var positiv korrelation mellem patientens alder og behov for mundpleje.

Det konkluderes at der er et stort behov for mundpleje blandt akut indlagte patienter. Forbedret mundpleje kan muligvis forebygge komplikationer blandt disse patienter.

OMSORGS FORSKNING

Uridine triphosphate has fewer side effects than adenosine when estimating coronary fractional flow reserve in humans

Jacob Sivertsen, Læge, ph.d.-studerende, Kardiologisk afdeling P

Jan Skov Jensen, Søren Galatius, Jaya Rosenmeier

Abstract:

Background:
Measurement of fractional flow reserve (FFR) is a highly recommended diagnostic method to guide revascularization in patients with coronary artery disease. Adenosine is the preferred vasodilator agent; however it is associated with many side effects and contraindications. We therefore investigated whether the receptor-selective vasodilator uridine triphosphate (UTP) had fewer side effects while being equal to or more effective with regards to lowering FFR in comparison to adenosine.

Method:
15 patients scheduled for percutaneous coronary intervention was included. A pressure wire was inserted across the stenotic lesion to measure FFR at steady-state hyperaemia. Three methods of vasodilation were used on each patient in a single-blinded randomised cross-over design. 1) The current standard 2 minute intravenous adenosine (i.v.) infusion of 240 µg/kg; 2) a intracoronary (i.c.) adenosine infusion; 3) a i.c. UTP infusion. The intracoronary infusions were given in eight one-minute steps with 0.075 µmol/min to 2.400 µmol/min.
Side effects were registered at each change in dosage as 1-4, with 1 representing ‘comfortable’ and 4 representing ‘extremely uncomfortable’.

Results:
I.v.adenosine resulted in FFR 0.74 with side effects at 3.2. Equimolar concentrations of i.c. adenosine and i.c. UTP resulted in FFR 0.73 and FFR 0.70 respectively and side effects at 2.0 and 1.22 at maximal hyperaemia with discomfort beginning at much lower levels with i.c. adenosine than i.c. UTP.

Conclusion:
Intracoronary UTP has significantly fewer side effects and is equal to or better than both i.v. and i.c. adenosine when used as a vasodilator to measure FFR.

Initiation and adherence to secondary prevention pharmacotherapy after myocardial infarction in patients with rheumatoid arthritis

Jesper Lindhardsen, Læge, Kardiologisk Afdeling P

Ole Ahlehoff (1), Gunnar Hilmar Gislason (1)
Ole Rintek Madsen(2), Jonas Bjerring Olesen(1), Christian Torp-Pedersen (1), Peter Riis Hansen (1)
1 Kardiologisk Afdeling P
2 Reumatologisk sektion - Medicinsk Afdeling C

Abstract:

Introduction:
Obesity and the metabolic syndrome is a frequent feature in patients with psoriasis. Psoriasis is a chronic inflammatory skin disease and the cutaneous manifestations may be enhanced by excessive adipose tissue. The aims of this study were to examine if psoriatic patients can achieve a weight loss to the same extent as non-psoriatic patients and to describe the effect of weight loss on the cutaneous manifestations.

Methods:
Nine obese patients, BMI 38.3 kg/m2 (33-46), with psoriasis were enrolled in a 12 week weight reduction programme. The programme consisted of eight weeks LCD, 800 kcal/day and a subsequent four week energy restricted diet, 1200 kcal/day. Due to the small sample size, data are presented as median (range).

Results:
Eight participants completed the LCD, after the LCD there was one dropout (family illness) and one was excluded due to lack of dietary adherence. Weight loss was 15.8 kg (11-23, $P<0.05$). Waist and hip circumference were reduced respectively 11 cm (7-20) and 7.5 cm (4-12) ($P<0.05$). Triglycerides showed a tendency to be reduced (1.44-1.26, $P<0.07$). Total cholesterol, HDL, LDL and VLDL were all reduced but did not reach statistical significance. PASI score was reduced from 3.4 to 2.8, though not significant.

Conclusion:
Patients with psoriasis achieved a weight loss of 12 % of their body weight following calorie restriction for 12 weeks. The effect of weight loss on the cutaneous manifestations was limited and did not reach statistical significance. Further, controlled, interventional studies are needed to test these hypotheses.

1. Conflict of interests
None disclosed

2. Funding
This study was funded by Copenhagen University Hospital Gentofte, Denmark as well as by a grant from the Michaelsen Foundation and Danish Agriculture and Food Council. LCD products were supplied by Nutrilett/NutriPro and Cambridge Weight Plan.

EPIDEMIOLOGISK FORSKNING

Basal Plasma Glucose, Insulin and Glucose-Dependent Insulinotropic Polypeptide Constitute Important Determinants of Fasting Hyperglucagonemia in Type 2 Diabetes

Jonatan Ising Bagger, læge, Diabetes Research Division, Dept. of Internal Medicine F

Filip K. Knop Diabetes Research Division, dept. of Internal Medicine F
Mai-Britt Toft-Nielsen, Dept of Internal Medicine M, Glostrup Hospital
Jens J. Holst, dept of Biomedical Science, The Panum Institute
Tina Vilsbøll Diabetes Research Division, Dept. of Internal Medicine F

Abstract:

Fasting hyperglucagonemia in patients with type 2 diabetes mellitus (T2DM) contribute to the exaggerated fasting plasma glucose (FPG) levels of these patients. However, the mechanisms underlying elevated basal plasma glucagon levels are poorly understood. We aimed to clarify the relationship between basal glucagon levels and several metabolic parameters including the gut incretin hormones glucose-dependent insulinotropic polypeptide (GIP) and glucagon-like peptide-1 (GLP-1).

Blood from patients with T2DM (N=104, 27% women; age: 57±1 years (mean±SEM); body mass index (BMI): 30±1 kg/m2; FPG: 10.8±0.3 mmol/L; HbA1c: 8.0±0.2%; diabetes duration: 53±6 months) and healthy control subjects (N=71, 27% women; age: 56±1 years; BMI: 28±1 kg/m2; FPG: 5.6±0.1 mmol/L (P<0.001 vs. T2DM); HbA1c: 5.6±0.1% (P<0.001 vs. T2DM)) was sampled in the fasting state. Multiple linear regression analysis with basal plasma glucagon as the dependent parameter and BMI, age, diabetes duration, insulin resistance according to the homeostatic assessment model (HOMAIR), HbA1c, FPG and basal insulin, C-peptide, GIP and GLP-1 plasma concentrations as independent parameters was performed.

Patients with T2DM had higher fasting levels of plasma glucagon (12.9±0.5 vs. 8.5±0.5 pmol/L, P<0.001), insulin (57±4 vs. 43±4 pmol/L, P=0.013), C-peptide (874±44 vs. 660±40 pmol/L, P=0.001) and GIP (15.5±1.7 vs. 11.1±0.9 pmol/L, P=0.03). HOMAIR was most pronounced among T2DM patients (3.7±2.5 vs. 1.6±1.4, P<0.0001). The included independent parameters among T2DM patients explained 42% (r2=0.42, P<0.0001) of the variation in their fasting plasma glucagon levels. Interestingly, the only significant contributors were FPG (P=0.002), fasting plasma insulin (P=0.004) and fasting plasma GIP (P=0.031), which all positively related to fasting hyperglucagonemia in patients with T2DM. None of these parameters predicted fasting glucagon levels in healthy subjects.

Our data suggest that elevated fasting plasma GIP levels, in addition to hyperglycemia and hyperinsulinemia, may play a role in the fasting hyperglucagonemia observed in patients with T2DM.

Oplevet dagligliv i den første rehabiliteringsperiode hos patienter opereret med knæalloplastik

Kirsten Szøts, Sygeplejerske, Kirurgisk afdeling Z

Hanne Konradsen, Forskningsenheden

Abstract:

I 2010 gennemgik ca. 8000 personer en primær knæalloplastik i Danmark. Undersøgelser har vist at de oplever store helbredsmæssige problemer de første uger efter udskrivelse fra hospitalet, men betydning af dette for deres rehabilitering i hjemmet er ukendt.

Telefonisk follow-up af 100 knæalloplastikpatienter 2-3 uger efter udskrivelse blev gennemført, med anvendelse af en struktureret valideret interviewguide udviklet til hoftealloplastikpatienter.

Dataanalyse anvendte deskriptiv statistik, med angivelse af de enkelte elementer i interviewguiden.

I den umiddelbare postoperative periode oplever størstedelen af patienterne smerter og hævelse. Mange oplyser at have søvnbesvær og nedsat appetit og ca. 2/3 udfører kun det anviste træningsprogram delvist overvejende grundet smerter og manglende motivation. Ligeledes har mange patienter tidligere i forløbet oplevet sundhedsrelaterede problemer og bekymringer i perioden efter udskrivelse, hvilket for flere har ledt til kontakt med sundhedsfagligt personale ud over det planlagte.

Dataanalyse pågår stadig, præcise data vil blive fremlagt på Forskningens Dag. Dette studie vil indgå som et feasibility studie i et fremtidigt interventionsstudie.

IL-33 induces IL-9 production in human T helper cells

Lars Blom, ph.d.-studerende, Laboratorium for Medicinsk Allergologi, Dermato-allergologisk afdeling K

Lars K. Poulsen, Laboratorium for Medicinsk Allergologi, Dermato-allergologisk afdeling K

Abstract:

Objective
TGF-beta has been associated with differentiation of IL-9 producing Th9 cells; and has been reported to be important in airway remodelling and tissue repair. In addition IL-33, an IL-1 family member and ligand for the IL-1 receptor-related protein ST2, has been associated to induction of classical Th2 cytokines. To investigate the IL-9 inducing effect of IL-33 and TGF-beta we used a 10-day culture protocol that mimic lymph node T-cell differentiation separated from tissue factors.

Methods
Naïve human CD4+CD45RA+CD45RO-CD25- T cells were purified and cultured under Th0, Th1, Th2 and Th9 inducing conditions for five days, and subsequently restimulated and split in cultures with TGF-beta, anti-TGF-beta, and/or IL-33 for additional five days of stimulation.

Results
Surprisingly, our results showed that IL-33 causes a dramatic increase in IL-9 secretion in both Th0 and Th2 cultures. Furthermore, the combination of TGF-beta and IL-33 potentiates the gene expression and protein secretion of IL-9 even further. Supplement of TGF-beta to the cultures induces increased secretion of IL-9 in both the Th1 and Th2 cultures. Additionally, flow cytometry and quantitative RT-PCR analysis shows an increase in the number of cells positive for IL-9 and an induction of IL-9 not only for the Th2 but also for the Th1 cultures with TGF-beta.

Conclusions
In relation to the newly described association of IL-9 in airway remodelling in chronic asthma, we report, that IL-33 alone or in synergy with IL-4 and TGF-beta up regulates IL-9 transcription, production and secretion in human in vitro differentiated CD4+ cell subsets. In addition, we find that TGF-beta induces IL-9 in purified human CD4+ T cells differentiated towards a Th1 profile.

Hvilken indflydelse har 1. gangs AMI på oplevelsen af seksuel sundhed, 3 måneder efter sygdomsdebut

Lene Høgh Søderberg, Projektsygeplejerske, Kardiologisk afd. P

Selina Kikkenborg Berg, Margrethe Herning, Dorte Overgaard

Abstract:

Baggrund:
I flg. WHO betragtes seksuel aktivitet som afgørende for livskvalitet, og studier påpeger, at mennesker ændrer seksuel adfærd efter Akut myokardieindfarkt (AMI). Der er forsket meget lidt i specielt kvinders seksuelle problemer efter AMI, og erfaringer fra praksis viser, at det er et overset problem fra sundhedsprofessionelles side, og forbundet med tabu for kvinderne at bringe op i samtaler med personalet.

Formål:
At beskrive hvorledes kvinder over 35 år oplever seksuel sundhed 3 måneder efter AMI.

Herunder:
Afdække hvordan og i hvilket omfang AMI påvirker kvinders seksuelle adfærd og sundhed.
Undersøge hvordan kvinder mestrer deres hverdagsliv og seksualitet efter AMI.
Afdække kvinders angst for seksuel aktivitet efter AMI
Afdække hvad grunden er til at kvinderne ikke er opsøgende om seksualitet.
Afdække hvilken hjælp og behov der kan støtte patienten og reducere seksuelle gener.

Metode:
Der foretages semistrukturerede interviews af 12-14 kvinder tre - fire måneder efter deres indlæggelse for AMI på kardiologisk afdeling P Gentofte Hospital. Interviewene forestås af erfaren sygeplejerske og trænet interviewer. Interviewene optages på bånd og transskriberes ordret. Interviewene analyseres i en hermeneutisk analyseramme.

REHABILITERINGS FORSKNING

Is propofol contraindicated in egg-, soy- and peanut allergics?

Louise Asserhøj, Datamanager, Dansk Allergi Anæstesi Center (DAAC) - allergiambulatoriet KAA-816, Gentofte Hospital

L. Asserhøj, H. Mosbech, M. Krøigaard, J.H. Heinig, L. Winther, P. Plaschke L.H. Garvey, Danish Anaesthesia Allergy Centre (DAAC) – Allergy Clinic, Gentofte Hospital

---

Abstract:

Background:
Propofol is often used to induce and maintain general anaesthesia. The manufacturers list egg-, soy- and peanut allergy as contraindications for the use of propofol as it contains egg lecithin and soy.

Only few case reports describe possible reactions to propofol in multiallergic children. A recent review article suggests that egg lecithin is not the allergen in egg allergy and that propofol is not contraindicated in soy- and peanut allergics. These statements have not been proven scientifically in larger studies.

The purpose of this study was to look for egg-, soy- and peanut allergy in patients investigated for suspected allergic reactions during anaesthesia in the Danish Anaesthesia Allergy Centre.

Methods:
In 2004-2011, 273 patients with an allergic reaction during anaesthesia were investigated and 153 (56%) had been exposed to propofol. Investigations included Histamine Release test (HR) (N=104), IgE for eggyolk, eggwhite and soy (N=148), skin prick test (N=152), intradermal test (N=149) and intravenous provocation (N=133) with propofol.

Results:
Four (2,6%) of 153 patients tested positive for propofol. All 4 had positive provocation, one had positive and three had negative skin tests. None had clinical egg-, soy- or peanut allergy or positive IgE for egg and soy.

Conclusion:
The literature and this study cannot support a connection between the three food allergies and propofol allergy.

The few reactions to propofol seen in seven years can either be due to vigilance regarding product leaflet recommendations or lack of a connection between the two types of allergy. Further studies of possible propofol exposure in egg-, soy- or peanut allergic patients will be initiated.

KLINISK FORSKNING

Forbedret overlevelse efter hjertestop udenfor hospital i Danmark

Mads Wissenberg, Læge, Kardiologisk afdeling P, PA forskning

Fredrik Folke, Peter Weeke, Jonas B Olesen, Freddy Lippert, Gunnar H Gislason og Christian Torp-Pedersen. Kardiologisk afdeling P, Gentofte hospital. Akut medicin og sundhedsberedskab, Region Hovedstaden.

Abstract:

Baggrund
Hjertestop udenfor hospital er en alvorlig tilstand med høj dødelighed. Vi har undersøgt udviklingen i 30 dages overlevelse på landsplan fra juni 2001-2007.

Metode
I studiet indgik i alt 18 265 patienter fra Dansk Hjertestop register. Alle patienter havde hjertestop udenfor hospital og modtog behandling af ambulancepersonale.

Resultater
Studiets vigtigste resultater viser at 30 dages overlevelsen steg fra 4,67 % i 2001 til 7,31 % i 2007 (p< 0,001). Vi fandt ligeledes en stigning i andelen af patienter der opnåede spontan cirkulation inden ankomst til hospital fra 8,06 % i 2001 til 14,9 % i 2007 (p< 0,001). Parallelt med denne positive udvikling var der en klar stigning i andelen af patienter der fik foretaget hjerte-lunge redning af lægmand inden ankomst af ambulance fra 19,3 % i 2001 til 31,9 % i 2007 (p< 0,001). Endeligt var der en stigning i andelen med stødbar rytme 21,2 % i 2001-2003, 20,5 % i 2004-2005 og 23,9 % i 2006-2007 (p< 0,001). Men antallet af hjertestop faldt over tid, fra 2946 i 2002 til 2368 i 2007 (p< 0,001). Den positive udvikling var således mindre udtalt i absolutte tal og her insignifikant for 30 dages overlevelse (p= 0,079) og stødbar rytme (p=0,38).

Konklusion
Vi fandt en stigning i andelen af patienter der overlevede dag 30 efter hjertestop udenfor hospital. Dette kan skyldes den øgede tendens til førstehjælp ved lægmand samt forbedring af ambulancetjenesters og hospitalers indsats. Men prognosen er fortsat dårlig og en del af den positive udvikling kan skyldes ændring i rapportering.

EPIDEMIOLOGISK FORSKNING

Contact allergy to the 26 specific fragrance ingredients to be declared on cosmetic products in accordance with the EU Cosmetic Directive

Maria Vølund Heisterberg, Læge, ph.d.-studerende, Videncenter for Allergi, Dermato-allergologisk af. K

Torkil Menné and Jeanne D Johansen. Videncenter for Allergi, Dermato-allergologisk af. K

Abstract:

Background: Fragrance ingredients are a frequent cause of allergic contact dermatitis. The EU Cosmetics Directive states that 26 specific fragrance ingredients, known to cause allergic contact dermatitis, are to be declared on the ingredient list of cosmetic products.

Aim: To investigate frequencies of sensitization to the 26 individual fragrances and evaluate their importance as screening markers of fragrance allergy.

Method: Retrospective study based on data from Department of Dermato-allergology, Copenhagen University Hospital Gentofte. Eczema patients (n=1508) were patch tested (January 2008-July 2010) with the 26 fragrance ingredients.

Results: Sensitization to the 26 fragrances was identified in 115 (7.6%) subjects. The most frequent allergens were Evernia furfuracea (n=50), Evernia prunastri (n=31) and hydroxyisohexyl 3-cyclohexene carboxaldehyde (n=24). Including fragrance mix I, fragrance mix II and Myroxylon pereirae 196 (13.0%) had a fragrance allergy. Testing with the 26 fragrances additionally identified 23 subjects, who would otherwise have gone undetected. The majority (75.7%) of positive reactions to the 26 fragrances were of clinical relevance.

Conclusion: Sensitization to the 26 individual fragrance ingredients was identified in 7.6% of the subjects patch tested. Most reactions were of clinical relevance. Fragrance allergic subjects would be missed if testing with the individual fragrance ingredients was not done.

EPIDEMIOLOGISK FORSKNING

Comparison of microRNA expression using different preservation methods of matched psoriatic skin samples

Marianne B. Løvendorf, Ph.d.-studerende, Dermato-Allergologisk afdeling, Gentofte Hospital

Marianne B. Løvendorf1,2, John R. Zibert2, Peter H. Hagedorn2, Christian Glue3, Niels Ødum4,5, Mads A. Røpke2, Lone Skov1.
1 Department of Dermato-Allergology, Gentofte Hospital, University of Copenhagen, Hellerup, Denmark
2 LEO Pharma A/S, Department of Molecular Biomedicine, Ballerup, Denmark
3 Exiqon A/S, Vedbaek, Denmark
4 Department of Biology, University of Copenhagen, Copenhagen, Denmark
5 Department of International Health, Immunology & Microbiology, Faculty of Health Sciences, University of Copenhagen, Copenhagen, Denmark

---

Abstract:

MicroRNAs (miRNAs) are small non-coding RNA molecules that modulate gene expression at the post-transcriptional level.

The inflammatory skin disease psoriasis is characterized by a specific miRNA expression-profile that differs from normal skin. Extracting high quality RNA from human skin can be a challenge since the skin contains high levels of RNases.

Furthermore, fixation of tissue samples using for instance formalin-fixation, paraffin-embedding (FFPE) causes extensive damage to the nucleic acids stored within the tissue, making subsequent RNA extraction and quantification challenging. Due to their small size (19-23 nucleotides) and lack of a poly A tail, miRNAs may be less affected by RNA degradation and damage than messenger RNAs (mRNAs).

We investigated the effect of three different preservation methods, FFPE, frozen (FS), and Tissue-Tek-embedding (OCT) on the global miRNA expression levels in matched lesional skin samples from 25 patients with psoriasis. We found that there was a strong correlation of the miRNA expression levels between the three different preservation methods of psoriatic skin samples with correlation coefficients ranging from 0.91 to 0.95 ($P < 0.001$).

These observations were further confirmed with panel and individual quantitative RT-PCR.

Our results demonstrate that miRNA detection in human skin is robust and reproducible and thus, the miRNAs offer an appropriate and flexible approach in clinical practices and may hold great promise for biomarker and novel target discovery for skin diseases in the future.

Intralymphatic specific immunotherapy – a new treatment form for grass pollen allergy. – A preliminary safety study.

Marianne Witten, MD, Ph.D.-stud., Dermato-Allergological dept. K, CUH-Gentofte, Dk

Hans-Jørgen Malling and Lars K. Poulsen, Dermato-allergological dept. K, CUH-Gentofte, Denmark

---

Abstract:

Background:
Allergen-specific immunotherapy is the only causative treatment for IgE-mediated allergic diseases such as hay fever. There is strong evidence, that a new treatment form with administration of allergen into a lymph node improves the efficacy, so the patient only need 3 injections compared to the standard subcutaneous method with 50 injections.

Aim:
To evaluate the safety-aspects of three different concentrations of grass pollen-allergen injected intralymphatic and assess immunological changes in blood samples.

Method:
12 patients (18-60 years) included with seasonal rhino-conjunctivitis, positive SPT and specific-IgE to grass pollen.
Exclusion criteria: Pregnancy, significant other disease, beta-blockers or previous immunotherapy treatment.
A randomized open trial, with one injection of 0.1 ml grass pollen-allergen in a lymph node in the groin. 3 groups of four patients receiving either 10, 100 or 1000 SQ-U.

Results:
No related adverse events in the first two groups. In the group with 1000 SQ-U all four had a small red area at the injection-site.
One patient had a swelling at the injection-site (6x8) duration 1 day.
One patient felt an itching of the eyes, duration 2 hours.
One patient had a swelling at the injection-site (9x3), and at two areas above (7x5), and one area below the injection-site (8x3), duration 3 days. The patient also experienced a rash at chest and neck 3 hours post-injection, duration 30 minutes.

Immunological parameters were mostly decreasing as expected out of season. No apparent change due to the intralymphatic injections.

Conclusion:
Minor adverse reactions not different from classical subcutaneous immunotherapy were observed for the highest dose.

Syncope a nationwide epidemiological study

Martin H. Ruwald, Klinisk assistent, Kardiologisk Afdeling P

Gunnar Gislason, Kardiologisk Afdeling P

Abstract:

Aims:
Syncope is a common cause for hospitalization and may be a predictor of sudden death. The main objective of this study is to determine the incidence, comorbidity and pharmacotherapy of patients admitted with a principle diagnosis of syncope.

Methods and results:
An observational cross-sectional study included patients with the principle diagnosis of syncope identified from the Danish National Patient Register in the period 1997-2009. All patients were matched on sex and age with 5 random controls from the Danish population. We estimated the incidence of syncope and the association with comorbidities and pharmacotherapy by conditional logistic regression analyses. We identified 146,161 patients with syncope, median age was 65 (IQR: 49-81) and 52.6% were female. Of these, 20.4% had cardiovascular disease and 48.3% were on cardiovascular specific medication. Compared to the control population, we found significant association between cardiovascular disease, age and the risk of admission for syncope; age 0-29 years (OR=11.8, CI: 10.2-13.7), age 30-49; (OR=9.4 CI: 8.9-9.9), age 50-79; (OR=7.5 CI: 7.3-7.7) and age above 80 (OR=6.3 CI: 6.2-6.3). Concomitant cardiovascular pharmacotherapy associated with age and risk of syncope; age 0-29 years (OR=2.5 CI: 2.3-2.7), age 30-49 years (OR= 2.1 CI: 2.0-2.2), age 50-79 years (OR=2.5 CI: 2.4-2.5), age above 80 years (OR=4.2 CI: 4.1-4.3).

Conclusion:
Syncope remains a common cause for hospital admission and is significantly associated with cardiovascular disease and medication. A more stringent definition and nationally implemented care path for syncope diagnosis could reduce unnecessary hospitalization.

Thrombotic events following clopidogrel discontinuation in patients with myocardial infarction: a nationwide cohort study

Mette Gitz Charlot, Klinisk Assistent1
Lars Hougaard Nielsen, phD2; Jesper Lindhardsen, MD1; Ole Ahlehoff, MD1; Morten Lock Hansen, MD PhD1, Peter Riis Hansen, MD PhD DMSc1; Jan Kyst Madsen, MD DMSc1; Lars Køber, MD DMSc3; Gunnar Gislason, MD PhD1 and Christian Torp-Pedersen, MD DMSc FACC1.

1Department of Cardiology, Copenhagen University Hospital Gentofte, Hellerup, Denmark
2 Department of Biostatistics, University of Copenhagen, Copenhagen, Denmark
3The Heart Centre, Copenhagen University Hospital Rigshospitalet, Copenhagen, Denmark

---

Abstract:

Purpose
It is debated whether there is benefit of extending clopidogrel treatment beyond the 12 months recommended in current guidelines for patients with myocardial infarction (MI). We analyzed the cardiovascular risk related to discontinuation of clopidogrel treatment in a nationwide cohort of patients with first-time MI.

Methods
Retrospective nationwide study based on registry data from Denmark. All patients discharged alive after first-time MI and treated with clopidogrel from 2004 to 2009 were included. Risk of recurrent MI or death after discontinuation of clopidogrel treatment was studied by multivariable Poisson models in relation to time passed since index MI. Follow up was up to 18 months.

Results
A total of clopidogrel treated 29266 patients were included; 3214 (11.0%) experienced recurrent MI or death during 18 months of follow up. There were 9817 (33.6%) patients treated only medically and 19449 (66.4%) patients with percutaneous coronary intervention (PCI).
For patients treated only medically with clopidogrel for the guideline recommended 12 months, the risk of recurrent MI or death in the first 90 day period of discontinuation was 1.07 (0.65-1.76; p=0.79) (adjusted incidence rate ratio (IRR) and 95% confidence interval) compared to the next 90 day period of discontinuation. For patients treated with PCI the IRR was 1.59 (1.11-2.30; p=0.013).

Conclusions
Discontinuation of clopidogrel treatment 12 months after MI is associated with increased risk of death or recurrent MI for patients treated with PCI. The results emphasise the need for studies investigating the risk related to discontinuation of clopidogrel in patients treated with PCI.

EPIDEMIOLOGISK FORSKNING

Psoriasis and cardiovascular risk - a Danish hospital cohort

Mette Gyldenløve, Læge, Dermato-allergologisk afd. K

Jensen P (a), Linneberg A (b), Thyssen JP (a), Zachariae C (a), Hansen PR (c), Skov L (a)
(a) Dermato-allergologisk afd. K, Gentofte Hospital
(b) Forskningscenter for Forebyggelse og Sundhed, Glostrup Hospital
(c) Kardiologisk afd. P, Gentofte Hospital

Abstract:

Background:
Psoriasis vulgaris is a chronic inflammatory skin disease and is associated with an increased mortality largely due to cardiovascular disease.

Aim:
To compare a hospital cohort of patients with psoriasis to individuals without psoriasis from the general population with regards to cardiovascular risk factors, including the Framingham risk score.

Methods:
Retrospective cohort study. We studied a hospital cohort and a cross-sectional sample from the general population served as control group.

Results:
A total of 185 patients with psoriasis aged 10 to 86 years were referred for out-patient treatment during 2009–2011. Mean Psoriasis Area and Severity Index score was 7.4±6.1, and 9.7 % of the patients received systemic treatment at the time of referral. The prevalence of medically treated diabetes was significantly elevated in patients with psoriasis (4.3 % vs. 2.1 %). In the psoriasis group the body mass index (27.2 vs. 25.9 kg/m^2) and waist circumference (96.8 vs. 88.7 cm) were also greater than in the control group. No significant difference was found for arterial hypertension (17.8 % vs. 15.5 %), hypercholesterolaemia (15.1 % vs. 14.5 %), and Framingham risk scores between the two groups.

Conclusion:
Our study showed that patients with moderate psoriasis had a higher prevalence of certain cardiovascular risk factors compared to individuals without psoriasis from the general population. However, the Framingham Risk Score did not demonstrate excess risk of cardiovascular disease in patients with psoriasis compared to controls.

Obstructive Sleep Apnea and its impact on mortality in patients suffering from obesity, cardiovascular disease and/or type II diabetes

Mia Nielsen, Stud. med., Kardiologisk Afdeling P

Charlotte Andersson og Christian Torp-Pedersen, Kardiologisk Afdeling P

Abstract:

Study objectives:
Sleep apnea is common in obese middle-aged patients and is associated with cardiovascular disease. The impact of sleep apnea and treatment with continuous positive airway pressure (CPAP) on outcomes in patients with established cardiovascular disease is not well described. We therefore examined this using a large cohort of obese patients with cardiovascular disease and/or type 2 diabetes.

Design:
Retrospective cohort study of patients enrolled in the Sibutramine Cardiovascular Outcomes study.

Setting:
Multicenter study in sixteen countries.

Patients:
The trial included 9804 patients, with either cardiovascular disease or type 2 diabetes with at least one additional cardiovascular risk factor. Out of these patients 330 suffered from sleep apnea and 159 treated with CPAP.

Results:
In patients with sleep apnea 94% had a Body Mass Index over 30. Median age in patients with sleep apnea was 62 (=58-67), and there was no significant difference between the study groups. Patients were followed for a mean period of 4.2 years. During this period death occurred in 21 patients and a primary outcome event (POE), defined as nonfatal myocardial infarction, nonfatal stroke, or resuscitation after cardiac arrest or cardiovascular death, occurred in 33 patients out of 330 with sleep apnea. For patients with sleep apnea, but no CPAP treatment adjusted hazard ratios for POE 0.703 (95% CI 0.413-1.196). Regarding patients with sleep apnea and CPAP treatment hazard ratios were 0.852 (95% CI 0.517-1.402) for POE.

Conclusion:
In the present cohort of middle-aged cardiovascular high-risk patients, sleep apnea did not affect the risk of death or major cardiovascular events.

EPIDEMIOLOGISK FORSKNING

Body mass index is inversely correlated to risk of definite stent thrombosis after percutaneous coronary intervention irrespective of stent type - a register-based study

Michelle Schmiegelow, Stud.med., yngre forsker, PA-forskning, kardiologisk afd. P

Christian Torp-Pedersen(1) , Gunnar H. Gislason (1), Charlotte Andersson(2), Sune Pedersen (2), Peter R. Hansen(1)
(1) Kardiologisk afd. P, Gentofte Hospital
(2) Kardiologisk afd. H, Hillerød Hospital

Abstract:

Purpose:
Stent thrombosis is a devastating complication of percutaneous coronary intervention (PCI). We examined if increasing body mass index (BMI) was a predictor of definite stent thrombosis after PCI, and whether this relationship was influenced by the stent type, i.e. bare metal stent (BMS) vs. drug-eluting stent (DES).

Methods:
We followed 5816 patients who underwent PCI with implantation of at least one BMS or DES at Gentofte University Hospital in the period 2000-2006. Only patients with one and the same type of stent (BMS or DES) implanted at the index PCI were included. Definite stent thrombosis was defined as myocardial infarction with acute or sub acute PCI in the coronary segment with the index stent(s). Multivariable Cox proportional-hazard models were used to estimate the risk of definite stent thrombosis. Analyses were performed with BMI as a continuous variable. In additional analyses the impact of stent type (BMS vs. DES) was investigated.

Results:
The median follow-up period was 27 (interquartile range 12-46) months and definite stent thrombosis occurred in 78 patients. The hazard ratio of definite stent thrombosis adjusted for number of stents at the index PCI was 0.90 (95% confidence interval 0.85-0.96) for each unit increase in BMI (kg/m2). There was no interaction between stent type and BMI (p=0.18). Lipid-lowering drugs were significantly associated with a 50% risk reduction and diabetes with a doubling in the risk of definite stent thrombosis.

Conclusions:
BMI was inversely correlated to the risk of definite stent thrombosis after PCI irrespective of stent type.

Glucose-dependent Insulinotropic Polypeptide - a Bifunctional Glucose-dependent Regulator of Glucagon and Insulin Secretion in Man

Mikkel Christensen, Læge, Diabetologisk Forskningsenhed, Medicinsk afdeling F, Gentofte Hospital.

Louise Vedtofte1, Tina Vilsbøll1, Filip K. Knop1, Jens J. Holst2
1Diabetologisk Forskningsenhed, Medicinsk afdeling F, Gentofte Hospital.
2Biomedicinsk Institut, Panum Instituttet, Københavns Universitet

---

Abstract:

Objective:
To evaluate the glucose dependency of the gut hormone glucose-dependent insulinotropic polypeptide (GIP) effects on insulin and glucagon release in humans.

Methods:
Ten healthy male subjects (age: 23±1 (mean±standard error of the mean (SEM)) years; BMI: 23±1 kg/m2; HbA1c: 5.5±0.1%) without family history of diabetes were studied on six separate days. Saline or physiological doses of GIP were administered intravenously (randomized and double-blinded) during 90 minutes of insulin-induced hypoglycemia, euglycemia or hyperglycemia.

Results:
During hypoglycemia (plasma glucose (PG) was gradually lowered from a mean fasting level of 5.0±0.1 mM to a mean plateau level of 2.8±0.1 mM). GIP infusion resulted in greater glucagon responses during the first 30 minutes compared to saline (area under curve: 76±17 vs. 28±16 pM×30 min, P<0.008), with similar peak levels of glucagon reached after 60 min. During euglycemia (mean PG: 5.0±0.1 mM) GIP infusion elicited larger glucagon responses (62±18 vs. -11±8 pM×90 min, P<0.005). During hyperglycemia (mean PG: 12.1±0.3 mM) comparable suppression of plasma glucagon (-461±81 vs. -371±50 pM×90 min, P=0.26) was observed with GIP and saline infusions. At the same time GIP more than doubled the insulin secretion rate (P< 0.0001).

Conclusions:
In healthy subjects, GIP has no effect on glucagon responses during hyperglycemia while strongly potentiating insulin secretion. In contrast, GIP increases glucagon levels during fasting and hypoglycemic conditions, where it has little or no effect on insulin secretion. Thus, GIP seems to be a physiological bifunctional blood glucose stabilizer with diverging glucose-dependent effects on the two main pancreatic glucoregulatory hormones insulin and glucagon.

KLINISK EKSPERIMENTEL

Risk and time of bleeding in relation to initiating antithrombotic drugs after myocardial infarction and percutaneous coronary intervention in patients with atrial fibrillation – A nationwide cohort study

Morten Lamberts, Læge, klinisk assistent, Kardiologisk Afdeling P

Jonas Olesen1, Christian Torp-Pedersen1, Gunnar Gislason1
1 Kardiologisk Afdeling P

Abstract:

Background:
Oral anticoagulants (OAC) are often needed as thromboprofylaxis in patients with atrial fibrillation due to risk of stroke. Coronary artery disease co-exists in a large proportion of these patients and hence a further indication for antiplatelet therapy. Lately questions have emerged that challenges the focus of preventing thromboembolic events with multiple antithrombotic drugs due to an increasing concern of bleeding. Current guidelines are based on only sparse evidence and expert statements, and often involve use of three different antithrombotic drugs.

Purpose:
To investigate bleeding risk in a time-dependent manner in subjects with known AF hospitalized for first-time myocardial infarction (MI) or percutaneus coronary intervention (PCI) treated with different combinations of antithrombotic therapy. We hypothesize that the risk of bleeding when initiating triple therapy (aspirin, clopidogrel, warfarin) is greatest in the initial 90 days, and then decreases to a continually elevated level compared to monotherapy with warfarin.

Methods:
Through nation-wide registries patients with AF hospitalized for first-time MI / PCI 2001-2008 and subsequent aspirin, clopidogrel and warfarin treatment are identified. Follow-up is 12 months in which event rates of bleeding are calculated. Risk and type of bleeding were analyzed by multivariable time-dependent Cox proportional-hazard models adjusted for age, sex, comorbidities, concomitant therapy, previous bleedings and PCI status.

Results:
A total of 6.854subjects (age 75.4, S.D.10.3, 39.8% female) were eligible for inclusion (4190 (62.6%) with first-time MI, 2564 (37.4%) with PCI). 913 (13.3%) we retreated with tripletherapy within 90 days from inclusion, 540 (7.9%) had a history of bleeding within 5 years and 436 (6.4%) had a previous ischemic stroke within 1 year prior to inclusion.

Conclusion:
Analyses are ongoing.

EPIDEMIOLOGISK FORSKNING

Anatomical and physiological characterization of the gut endocrine cells and their role in medical and surgical treatment of diabetes mellitus

Nicolai Alexander Rhee, Læge, ph.d.-stud., Afdeling F

1. reservelæge, ph.d. Filip Krag Knop, overlæge, dr. med. Tina Vilsbøll, overlæge Peter Villman, overlæge, ph.d. Jakob Hendel, læge Jens Pedersen, Panum Instituttet, overlæge Steen Seier Poulsen, Panum Instituttet.

Abstract:

Background
The hormones GIP and GLP-1 are released from cells in the small intestine after ingestion of nutrients. GIP and GLP-1 are two of the most potent insulin releasing hormones acting on the pancreas.

GLP-1 is excreted in the L cells of the intestinal mucosa as a response to intake of nutrients.
After transcription of the glucagon gene in the L cells, proglucagon is processed by prohormone convertase 1 (PC1) to GLP-1, GLP-2 (which is of importance in gut growth), and glicentin, which is most likely biologically inactive. Contrary to this, proglucagon is processed to glucagon through the enzyme prohormone convertase 2 (PC2) in pancreatic alpha cells. Apart from the glucose dependant insulinotropic effect in pancreas (through GLP-1 receptors on beta cells) it has been shown that GLP-1 inhibits pancreatic glucagon secretion and increases beta cell mass partly via trophic impact and partly through inhibition of beta cell apoptosis. GIP is secreted from intestinal K cells and has somewhat identical glucose lowering properties albeit it also has the potential to stimulate glucagon secretion.

Methods
Through a new variant of endoscopy, double-balloon endoscopy, which enables collection of biopsies throughout the entire human small intestine we whish to map the distribution of hormone producing cells in the complete human small intestine and caracterize the cells through modern molecular biological techniques. The subjects are sedated using NAPS (nurse assisted propofol sedation). Through immunohistochemistry and gene expression analyses cell distribution and genes important to the secretion of GIP and GLP-1 will be examined.

Results
No preliminary results or conclusion yet.

KLINISK FORSKNING

Is DAS28(CRP) with three and four variables interchangeable in rheumatoid arthritis patients selected for biological treatment in daily clinical practice?

Ole Rintek Madsen, Overlæge, ph.d., dr.med., Medicinsk afdeling C

Abstract:

Background:
DAS28 is widely used in daily clinical practice for the assessment of disease activity in patients with rheumatoid arthritis (RA). Different versions of the score can be calculated. DAS28-CRP(3) is calculated using three variables: swollen and tender joint count and CRP. DAS28-CRP(4) also includes patient's global assessment (PGA). Thresholds for the scores are the same.

Objective:
To examine the agreement between the two DAS28-versions in RA patients chosen for biological treatment in daily clinical practice.

Methods:
Data from 319 patients starting biological treatment were extracted from the DANBIO registry. Agreement between the two DAS-versions was evaluated by the Bland-Altman method after log10-transformation for improved normalization of the data. The log10-transformed results were then converted to back-transformed differences by taking the anti-log of the differences.

Results:
Age (56±14 years), number of swollen joints (6.9±4.6) number of tender joints (8.4±6.6), CRP (25±36 mg/l), PGA (56±26), DAS28-CRP(3) (4.5±1.2) and DAS28-CRP(4) (4.8±1.2). The mean difference between the two indices [DAS28(3)-DAS28(4)] was -0.29±0.33. The two scores were strongly inter-correlated ($r = 0.96$, $p < 0.0001$). The antilogs of the mean difference and of the limits on the log scale were 0.94 (95% CI: 0.93-0.95), 0.80 (95% CI: 0.78-0.81) and 1.11 (95% CI: 1.09-1.13). Back-transformed results are dimensionless ratios. Thus in average, DAS28-CRP(3) was 6% lower than DAS28-CRP(4) and in 95% of the cases DAS28-CRP(3) differed from DAS28-CRP(4) by 20% below to 11% above.

Conclusion:
On average DAS28-CRP(3) was slightly underestimated compared to DAS28-CRP(4). In the individual patient, however, the two scores may differ considerably.

Prognostic significance of electrocardiographic Q-waves in a low risk population

Peter Godsk Jørgensen, Klinisk assistent, Kardiologisk afd. P

Jan Skov Jensen (Gentofte), Steen Abildstrøm (Bispebjerg), Merete Appleyard (Østerbrous.) og Rasmus Møgelvang (RH)

Abstract:

Aims
In individuals without known heart disease, electrocardiographic Q-waves predict a poor prognosis. We aimed to examine whether prognostic information can be derived from the size and location of Q-waves in persons from the general population without known ischemic heart disease (IHD) or heart failure (HF).

Methods and results
Electrocardiograms of 5,381 persons without known IHD or HF from the 4th Copenhagen City Heart Study were reviewed and Q-waves were classified according to their size and location. Multivariate Cox proportional hazards regression models were used to examine the associations of Q-waves adjusted for age, hypertension, diabetes and estimated glomerular filtration rate with the risk of the combined end-point of death and hospitalization for IHD. During a median of 7.8 years of follow-up, 1,003 persons reached the combined end-point. 114 (2.1%) had pathological Q-waves of whom 44 % suffered from an event compared to 18 % from the control group, p<0.001. Persons with hypertension, diabetes and impaired renal function were more likely to have Q-waves. Even small Q-waves (i.e. Minnesota code 1.2.x-1.3.x) were associated with a poor prognosis, hazard ratio (HR) 1.4 (95%-CI: 1.0-2.0; p<0.05), though not as grave as large Q-waves (i.e. Minnesota code 1.1.x) HR 2.8 (95%-CI: 1.6-5.0; p<0.001). Conversely, there was no difference in the outcome of patients with anteriorly HR 1.6 (95%-CI: 1.1-2.4) vs. posteriorly HR 1.5 (95%-CI: 0.9-2.4) located Q-waves (p=0.85).

Conclusions
In the general population without known IHD or HF, even small Q-waves in the electrocardiogram are associated with a poor prognosis.

YKL-40: a potential biomarker for psoriatic arthritis?

Peter Jensen, Læge, ph.d.-studerende, Dermato-allergologisk afdeling K

Kristina Milting1, Lone Skov1
Charlotte Wiell2, René Poggenborg3, Mikkel Østergaard3, Julia Johansen4

1Dermato-allergologisk afdeling K, Gentofte Hospital
2Rheumatologisk afd., Gentofte Hospital,
3Rheumatologisk afd., Glostrup Hospital,
4Medicinsk afd. O, Herlev Hospital

Abstract:

YKL-40 is a new biomarker in patients with inflammation and cancer. No useful clinical biomarker exists in patients with psoriasis and psoriatic arthritis.

Given the inflammatory nature of psoriasis and psoriatic, we hypothesized that elevated plasma YKL-40 may serve as a marker of disease activity in these conditions.

We included two groups of patients: 1) 51 patients with plaque psoriasis (29 men, 22 women, median PASI 10.7 (range 1.6-24), median age 50 years (range 19-79)). Plasma YKL-40 and PASI were measured at inclusion. In a subgroup of 15 patients these measurements were repeated after four to six weeks of systemic anti-inflammatory therapy. 2) 42 patients with psoriatic arthritis (18 men, 24 women, median age 51.5 (range 26-82) treated with the TNF-α inhibitor adalimumab 40 mg s.c. every other week. Plasma YKL-40 was determined at baseline and during 48 weeks of treatment. The modified psoriatic arthritis response criteria (PsARC) were used to divide the patients into responders and non-responders.

The median pre-treatment plasma concentration of YKL-40 in patients with psoriasis was 48 µg/l (range 12-1590 µg/l) and only 9 (18%) had plasma YKL-40 levels above the 95th percentile (calculated with an equation for the YKL-40 percentile as a function of age and the absolute plasma YKL-40 concentration1). There was no correlation between PASI and plasma YKL-40 at baseline (rho=0.1, p=0.486). Despite a significant decrease in PASI after systemic anti-inflammatory treatment (9.5 at baseline vs. 3.9 at 4-6 weeks, p=0.001) no decrease in plasma YKL-40 was found in these patients. The median pre-treatment plasma YKL-40 in patients with psoriatic arthritis was 112.5 µg/l (range 35-660 µg/l) and 18 (43%) had plasma YKL-40 levels above the 95th percentile in healthy subjects. 33 patients with psoriatic arthritis responded to treatment with adalimumab and plasma YKL-40 decreased significantly in these responders from 113 µg/l at baseline to 68 µg/l at 48 weeks, p=0.007. In the 9 patients with psoriatic arthritis and no effect of adalimumab treatment, plasma YKL-40 was unchanged (127 µg/l at baseline and 272.5 µg/l at 48 weeks (or at exclusion from the study), p=0.18).

Plasma YKL-40 is elevated in many patients with psoriatic arthritis but not in patients with psoriasis. Plasma YKL-40 may be a useful biomarker to monitor the effect of treatment with adalimumab.

Reference: 1. Bojesen SE, Johansen JS, Nordestgaard BG. Plasma YKL-40 levels in healthy subjects from the general population. Clin Chim Acta 2011;412:709-12.

EPIDEMIOLOGISK FORSKNING

GLUCOSE TOLERANCE AND GASTROINTESTINAL-MEDIATED GLUCOSE DISPOSAL IN PATIENTS WITH MATURITY ONSET DIABETES OF THE YOUNG

Signe Harring Østoft, Klinisk assistent, phd-studerende, Medicinsk afdeling F, Diabetologisk Forskningsenhed

Filip K. Knop (Afd. F), Torben Hansen (Steno Diabetescenter), Oluf B. Pedersen (Steno Diabetescenter) og Tina Vilsbøll (Afd. F)

Abstract:

Background & aims
Maturity-onset diabetes of the young (MODY) is a clinically and genetically heterogeneous subgroup of non-autoimmune diabetes, which constitute about 1-2% of all diabetes. It is unknown, whether the pathophysiology of the specific subtypes of MODY involves defects in secretion and/or efficacy of the incretin hormones glucagon-like peptide-1 (GLP-1) and glucose-dependent insulinotropic polypeptide (GIP). We aimed to describe the incretin effect by evaluating the gastrointestinal-mediated glucose disposal (GIGD) in patients with MODY2 and MODY3 and a group of matched healthy control subjects.

Material & methods
Seven MODY3-patients (age: 29±3 years (mean±SEM); body mass index (BMI): 24±1 kg/m^2; HbA_{1c}: 7.0±0.4%), 9 MODY2-patients (age: 43±5 years ; BMI: 24±2 kg/m^2; HbA_{1c}: 6.7±0.2 %) and 7 healthy controls (age: 35±3 years; BMI: 23±1 kg/m^2; HbA_{1c}: 5.2±0.1%) were examined on two separate occasions: 4h 50-g oral glucose tolerance test (OGTT) and isoglycaemic iv glucose infusion (IIGI).

Results
Isoglycaemia during IIGIs was obtained using 33±5 g and 30±3 g of glucose in subjects with MODY3 and MODY2, respectively (p=NS), and 23±2 g in healthy control subjects (p=0.06 and p=0.09, respectively), resulting in GIGD [100% × ($glucose_{OGTT}$ - $glucose_{IIGI}$/$glucose_{OGTT}$)] of 34±9% and 41±5% in subjects with MODY3 and MODY2 respectively (p=NS) and 54±5% in the healthy control subjects (p=0.06 and p=0.09, respectively). Peak concentrations of plasma glucose were similar in the two MODY groups (15.6 ±1.6 vs 13.8±0.6 mmol/l, p=NS), and higher than in the control group (8.8±0.5 mmol/l; p<0.002 and p<0.0002, respectively).

Conclusion
As expected the two groups of MODY-patients demonstrated higher peak glucose concentrations after oral glucose. The GIGD seems to be impaired in patients with MODY as compared to healthy subjects, although the decrease did not reach a statistical level. Additional subjects are being included in the trial which is expected to be finalized by November 2011.

KLINISK FORSKNING

Prognostic Utility of Neutrophil Gelatinase-Associated Lipocalin (NGAL) in Predicting Mortality and Cardiovascular Events in Patients with ST-Segment Elevation Myocardial Infarction Treated with Primary Percutaneous Coronary Intervention.

Søren Østergaard Lindberg, Klinisk assistent, Kardiologisk afd P

Sune Pedersen, Rasmus Mögelvang, Søren Galatius og Jan Skov Jensen, Kardiologisk afd. P

Abstract:

Introduction:
Neutrophil Gelatinase-Associated Lipocalin (NGAL) is a glycoprotein stored in granules of mature neutrophils. Newer data suggests that NGAL is involved in the development of atherosclerosis. NGAL is significantly increased in patients with myocardial infarction compared to patients with stable coronary artery disease and healthy subjects. However, the prognostic value of NGAL has never been studied in patients with myocardial infarction (MI).

Methods:
We included 584 consecutive patients with ST-segment elevation myocardial infarction (STEMI) admitted to a single, high-volume invasive heart centre, treated with primary percutaneous coronary intervention (pPCI) from September 2006 to December 2008. Blood samples were drawn immediately before the pPCI. Plasma NGAL levels were measured using a Time-Resolved Immuno-flourometric assay (TRIFMA). Endpoints were all-cause mortality and the combined endpoint major cardiovascular events (MACE) defined as cardiovascular mortality and admission due to a new MI or heart failure. Median follow-up time was 23 months (IQR: 20-24).

Results:
The study population was stratified according to NGAL quartiles. Patients with high NGAL (quartile 4) had increased all cause mortality and MACE compared to patients with lower NGAL (quartile 1-3) (log rank, $p<0.001$). After adjustment for conventional risk factors (age, gender, smoking, hypertension, hypercholesterolemia, diabetes, body mass index, C-reactive protein, peak troponin I, estimated glomerular filtration rate, LVEF, previous MI, multi-vessel disease, complex lesions, LAD lesion, and symptom-to-balloon time) by Cox-regression analysis, high NGAL remained an independent predictor of all cause mortality and MACE: hazard ratio 2.2 (95% CI 1.3-3.7; $p=0.005$) and hazard ratio 1.6 (95% CI 1.1-2.4; $p=0.03$), respectively.

Conclusion:
High plasma NGAL independently predicts all cause mortality and MACE in STEMI-patients treated with pPCI.

CopenHeartIE 1 - Effekt og betydning af integreret rehabilitering til patienter behandlet for infektiøs endokardit (IE)

Trine Bernholdt Rasmussen, Sygeplejerske, Cand.cur., Ph.d. stud., Kardiologisk afd. P

Selina Kikkenborg Berg, Kardiologisk afd. P

Abstract:

Betændelse af hjerteklapperne, infektiøs endokardit, er en livstruende sygdom, som indebærer langvarig hospitalsindlæggelse med store mængder antibiotika og eventuel hjerteklapoperation. Efter endt behandling er patienterne ofte er både fysisk og psykisk medtagede af forløbet. Hvordan de oplever tiden efter udskrivelse er kun sparsomt belyst. En undersøgelse har peget på, at de kan have fysiske gener op til et år efter, oplever forringet livskvalitet og ikke vender tilbage i arbejde. Der er aktuelt ikke lavet studier der undersøger, om patienter behandlet for IE kunne have gavn af rehabilitering.

Projektet består af fire delundersøgelser. Vi er aktuelt i gang med to forundersøgelser. Den ene består af en spørgeskemaundersøgelse, der beskriver patienternes selvvurderede helbred, livskvalitet og omfang af rehabiliteringstilbud aktuelt og den anden udforsker, hvordan patienterne oplever tiden efter udskrivelse gennem interview. Effekten af rehabilitering undersøges gennem et såkaldt randomiseret kontrolleret forsøg i delstudie tre, hvor patienterne deles i to grupper og den ene modtager rehabilitering, bestående af individuelt tilrettelagt træning og samtaler med en sygeplejerske. Delstudie fire belyser hvilke dele af programmet, de deltagende patienter har oplevet som betydningsfulde gennem interview, for at opnå mere detaljerede data.

CopenHeartIE studiet vil bidrage med original og nyttig viden om, hvordan mennesker, der har været indlagt og behandlet for IE, har det efter udskrivelse. Målet er at bevise, at integreret rehabilitering kan forbedre mentalt helbred, livskvalitet og fysisk kapacitet. I tillæg hertil, er målet på lang sigt at kunne reducere brugen af, og udgifter til, social- og sundhedsydelser, samt nedbringe dødeligheden.

FIE – penge til forskning

Mangler du en hjælpende hånd i jagten på forskningsmidler? De fleste forskningsprojekter er afhængige af ekstern finansiering. Det kan være et omfattende arbejde at søge midler, men FIE, Region Hovedstadens Forsknings- og Innovationsstøtteenhed, hjælper dig i ansøgningsprocessen.

FIEs opgave er at tiltrække flere eksterne midler til regionens forskere fra nationale og internationale fonde samt tilskudsprogrammer til større forsknings- og udviklingsprojekter på sundhedsområdet. Det gør vi ved at rådgive og yde konkret bistand vedr. ansøgning om eksterne finansieringsmidler. Alle vores ydelser er gratis, og vi har tavshedspligt.

Hvordan kan FIE hjælpe?:

- Få kompetent rådgivning om bl.a. finansierings- og strategisk planlægning. Vi har også specialkompetencer vedr. EU´s 7. rammeprogram og programmer fra amerikanske National Institutes of Health.
- Få hjælp til udformning af din ansøgning – både sprogligt og vedr. formalia. Vi tilbyder gratis engelsk korrektur på større ansøgninger, og ved store, strategiske, tværgående projektansøgninger kan vi fungere som tovholder i ansøgningsprocessen. Vi kommer også gerne ud og holder workshop om "den gode ansøgning" eller andre emner.
- På vores hjemmeside har vi en veludbygget værktøjskasse med alverdens gode råd, når du skal skrive en forskningsansøgning.
- Fire gange om året holder vi workshop om "den gode ansøgning".
- Søg i finansieringsdatabasen som også er tilgængelig på vores hjemmeside. Den indeholder ca. 550 opslag om relevante finansieringskilder – så behøver du kun at lede ét sted.

Besøg vores hjemmeside – www.regionh.dk/fie
Få mere information på vores hjemmeside. Tilmeld dig vores månedlige nyhedsbrev og få tilsendt information om ansøgningsfrister, arrangementer og anden forskerrelevant information. På hjemmesiden finder du også kontaktoplysninger på vores konsulenter.

Clinical Trial Alliance - én indgang til kliniske forsøg

Den 1. december 2010 oprettede Region Hovedstaden Clinical Trial Alliance (CTA). Projektet er forankret i FIE og skal hjælpe med at sikre grundlaget for klinisk forskning i regionen.

CTA har til formål at gøre det lettere at skabe gode samarbejdsmuligheder mellem forskere og industri ved gennemførelse af kliniske forsøg. Det gælder både de forskerinitierede og industriinitierede forsøg.

Funktionen er et tilbud til både hospitaler, forskere og virksomheder og skal fungere som en koordinerende og samlende funktion, hvor de tre parter kan henvende sig for at få yderligere viden og hjælp til processen omkring gennemførelse af kliniske forsøg.

Clinical Trial Alliance fokus på at:

- etablere samarbejder mellem industri og forskere / hospitaler omkring kliniske forsøg
- skabe og formidle overblik over eksisterende specialespecifikke forskernetværk og bidrage til dannelse af forskernetværk
- bidrage med knowhow omkring etablering og drift af kliniske forskningsenheder

Britta Smedegaard Andersen er projektleder og kan kontaktes på bsa@regionh.dk eller på tlf. 30 45 97 68. Læs mere på Clinical Trial Alliances hjemmeside: www.regionh.dk/cta

Tectra

Tectra er Region Hovedstadens Teknologioverførselsenhed. Vi servicerer alle regionens hospitaler samt Psykiatrien omkring patentering og kommercialisering af opfindelser gjort på regionens hospitaler samt yder juridisk assistance ved indgåelse af aftaler.

Tectra kan hjælpe inden for 3 hovedområder:

1. Vi vurderer, om anmeldte opfindelser kan patentbeskyttes og kommercialiseres
2. Vi står for kommercialiseringsprocessen
3. Vi varetager den juridiske behandling af samarbejdsaftaler og forskningskontrakter mellem ansatte på regionens hospitaler og private virksomheder

Hvem er Tectras medarbejdere?
Vi er ti ansatte, der har specialiserede kompetencer inden for naturvidenskab, forretningsudvikling, patentering, juridisk rådgivning, opstart af biotekvirksomheder. Herudover har vi et omfattende internationalt netværk inden for venturekapital og biotek- og farmaindustrien.

Tectra har fuld tavshedspligt!
Det er vigtigt, at du henvender dig så hurtigt som muligt, hvis du mener, at du har gjort en opfindelse. En allerede offentliggjort opfindelse er nemlig meget svær at beskytte! Husk derfor at patentere og publicere i nævnte rækkefølge.

Læs mere på vores hjemmeside: www.regionh.dk/tectra eller ring til os på tlf. 38 66 69 25.