

Retrospektive studier:

1.

A Single Center retrospective study on 659 re-excisions of melanoma and 769 sentinel node biopsies in 2008-2012

Ulrik Kjerkegaard , Mai Eldon, Pia Sjøgren and Lars Stolle

**Background:** Sentinel node biopsy (SNB) is a staging procedure used for diagnostic purpose in melanoma patients with a high risk of nodal micrometastasis. This study aimed to describe the treatment and outcome of patients with cutaneous malign melanoma and SNB at a single center in Denmark.

**Methods:** In a retrospective design, all patients with melanoma who underwent SNB in 2008-2012 were included in the study. Patients were stratified according to tumor thickness and ulceration. The outcomes were measured in terms of node positivity rate, post-operative complications, recurrence and overall survival of the patients.

**Results:** A total of 769 SNB procedures were performed. No metastases were found in any non-sentinel node biopsies. Nodal metastasis occurred in 24% of all patients. The mean tumor thickness was larger in patients with a positive SNB (3.2 (0.7-15) mm) compared to no nodal metastasis (1.9 (0.3-32) mm) ( $P < 0.0001$ ). The disease-free survival rate was 90.3% [95%-CI: 85.2%-93.7%] in patients without nodal metastasis and 48.6% [95%-CI: 36.3%-59.7%] in patients with a positive SNB ( $P < 0.0001$ ). Tumor thickness, ulceration and nodal metastasis predicted poorer prognosis. One or more complications occurred in 9.6% of the patients subsequent to SNB.

**Conclusion:** SNB represents the most important step in workup for regional metastasis in patients with melanoma. We confirmed that Breslow thickness, ulceration and nodal metastasis were important predictors of prognosis. This study demonstrated results from a University Hospital in Denmark similar to other epidemiological evaluations of melanoma and SNB.

2.

Metastatic (Stage III) melanoma and completion lymph node dissection at a University Hospital Facility

Ulrik Kjerkegaard<sup>1,2</sup>, Pia Sjøgren<sup>1</sup> and Lars Stolle<sup>2</sup>

<sup>1</sup> Department of Plastic – and Reconstructive Surgery, Aarhus University Hospital

<sup>2</sup> Department of Plastic – and Reconstructive Surgery, Odense University Hospital

**Background:** Malign melanoma continues to present a severe health problem, and the incidence is still raising. Nodal status and ulceration of the primary melanoma are strong prognostic factors. The main treatment of node-positive melanomas (stage III) is complete lymph node dissection (CLND). The aim of this study was to describe the outcome in patients with stage III melanoma who underwent completion lymphadenectomy at a department of plastic surgery.

**Material and method:** Retrospectively, we included all patients who underwent CLND in the period of 2008 to 2012 subsequent to a positive sentinel node biopsy (SLNB) or palpable metastasis from a cutaneous malign melanoma. Primary outcomes were disease-free survival and melanoma-specific survival.

**Results:** We included 150 patients with an average age of 57.3 (16-82) years. Melanoma thickness was 3.1 (0.53-15) mm. Ulceration of primary tumor was present in 34.7 %. CLND was performed in the neck, axilla, inguinal region and aberrant region. There was no difference in occurrence of non-sentinel node metastasis comparing the regions. Seroma was most frequent in the axilla (23.5%) and inguinal region (18.9%). Lymphedema occurred in the inguinal region (15.1%) and the axilla (4.7%), and wound infection occurred in the inguinal region (30.2%), the axilla (15.3%), and the neck (11.1%).

The 5-year nodal recurrence rate was 24.0% [95%-CI: 14.0%-39.1%] and the 5-year rate of visceral metastases was 48.3% [95%-CI: 36.5%-61.8%]. Overall survival was 51.8% [95%-CI: 35.6%-65.8%]. More than 3 nodal metastases worsened the prognosis (reference:  $\leq 3$  lymph nodes).

**Conclusion:** Therapeutic lymph node dissection is recommended in patients with nodal metastasis to achieve regional disease control. The final conclusion from prospective studies on benefits associated with CLND following a positive SLNB are still awaiting. The procedure was associated with a moderate complications rate.

3.

**Titel: Kliniske resultater, livskvalitet og overlevelse efter lapkirurgisk rekonstruktion hos patienter med cancer i cavum oris og oropharynx**

**Forfattere:**

Shems Al-Hayder, reservelæge, Klinik for Plastikkirurgi, Brystkirurgi og Brandsårsbehandling, Rigshospitalet.

Jens Jørgen Elberg, speciallæge i plastikkirurgi, Amalieklinikken.

Birgitte Charabi, overlæge, Øre-næse-halskirurgisk og Audiologisk Klinik, Rigshospitalet.

**Formål** at undersøge kliniske resultater, helbredsrelateret livskvalitet og overlevelse hos patienter opereret for cavum oris eller oropharynx cancer med primær rekonstruktion med fri lap.

**Materiale og metode** En spørgeskemaundersøgelse baseret på standardiserede og validerede instrumenter, European Organization for Research and Treatment of Cancer Quality of Life Core Questionnaire (EORTC QLQ-C30) og European Organization for Research and Treatment of Cancer Quality of Life Questionnaire Head and Neck Cancer Module (EORTC QLQ-H&N35), blev gennemført i perioden fra den 14. september til den 23. november 2012. Alle patienter opereret for cavum oris eller oropharynx cancer og rekonstrueret med radialis- eller fibula-lap på Rigshospitalet, Københavns Universitetshospital, fra september 2001 til juli 2012 blev inkluderet i studiet. Studiepopulationen bestod af 60 patienter, hvoraf kun 19 deltog i spørgeskemaundersøgelsen. Kliniske resultater blev indhentet ved retrospektiv journalgennemgang.

**Resultater** Fri lap succesrate var 93,3 %. Tidlige komplikationer opstod hos 36 patienter (60,0 %), hvoraf de hyppigste komplikationer på recipientsted var blødning (10,0 %), fistel- (10,0 %) og seromdannelse (8,3 %) samt sårinfektion (8,3 %), mens det på donorsted var sårdehiscens (23,3 %). Reoperation var nødvendig i 8 af tilfældene (13,3 %). 23 patienter (38,3 %) udviklede senkomplikationer, hyppigst sårdehiscens (23,3 %) og mandibulær osteoradionekrose (16,7 %). Den generelle 5-års overlevelse var for patienter i stadie I, II, III, and IV hhv. 25 %, 44 %, 36 %, and 28 %. Den sygdomsspecifikke 5-års overlevelse var for patienter i stadie I, II, III, and IV hhv. 25 %, 63 %, 50 %, and 46 %. Der blev fundet acceptabel overordnet livskvalitet og relativt høje scorer på funktionsskalaerne. De værste hoved- og halscancerspecifikke problemer var relateret til tør mund, social spisning og seksualitet.

**Konklusion** Resultaterne fra nærværende studie bekræfter den høje sikkerhed og pålidelighed af radialis- og fibula-lap rekonstruktion med lav forekomst af total lapnekrose og acceptabelt niveau af svære komplikationer. Ydermere, opnåede de fleste patienter tilfredsstillende helbredsrelateret livskvalitet, selv efter omfattende hoved- og halskirurgi.

**Forfattere:**

Damien Grinsell MBBS FRACS, Meron Pitcher MBBS FRACS, Shirley Wong FRACT, Mario Guerrieri FRANZCR, Hans Henrik Møller Nielsen Læge PhD

**Institution:**

Department of Plastic Surgery, St. Vincent's Hospital, 41 Victoria Parade, Fitzroy, Melbourne, VIC, Australia

**Titel:**

Primær fri autolog bryst rekonstruktion efter neoadjuverende kemoterapi og præoperativ stråleterapi for brystkræft

**Abstract:****Formål/Baggrund:**

Bryst rekonstruktion efter mastektomi i behandlingen af lokoregionalt fremskreden brystkræft foretages ofte i flere indgreb og før strålebehandling. Vi har tidligere publiceret en algoritme for primær fri autolog bryst rekonstruktion efter neoadjuverende kemoterapi og preoperativ stråleterapi. Denne protokol var konstrueret for at forkorte og forsimple det rekonstruktive forløb, samtidig med at bedre det kosmetiske resultat og bevare den onkologiske effektivitet.

Dette er de første kliniske resultater.

**Materiale og metoder:**

Ialt 29 patienter blev inkluderet og opereret for 30 cancere af første forfatteren imellem 2010 og september 2015. Patient data blev løbende indtastet i en database og analyseret for initial tumor størrelse, reaktion på kemoterapi, lymfeknude involvering, kirurgiske komplikationer og recidiv.

**Resultater:**

Gennemsnitsalderen var  $55 \pm 7$  år. 80 procent af alle patienter udviste enten delvist eller komplet tumorsvind defineret som >25% formindskelse i tumorstørrelse.

28 patienter fik en fri lap fra abdomen. Én patient blev ekskluderet på grund af fremskreden sygdom. Der var ingen re-operationer for anastomoseproblemer, men én patient blev re-opereret for et hæmatom. 4 patienter fik recidiv under follow-up heraf 3 fatale.

**Diskussion/Konklusion:**

Primær fri autolog rekonstruktion er den gyldne standard indenfor bryst rekonstruktion. Såfremt rækkefølgen imellem stråleterapi og kirurgi ombyttes, er det nødvendigt at operere i et nyligt

bestrålet område. Vi mener at de resulterende kirurgiske udfordringer bliver opvejet af et kortere og simplere rekonstruktivt forløb, der tilmed resulterer i et bedre kosmetisk resultat.

Det er muligt at foretage primær fri autolog brystrekonstruktion efter neoadjuverende kemoterapi og preoperativ stråleterapi med gode resultater og sammenlignelig onkologisk effektivitet.

5.

## **Coagulation and fibrinolysis in corrective surgery after weight loss**

Authors: Iselin Saltvig<sup>1</sup>, Vibeke Koudahl<sup>1</sup>, Søren Risom Kristensen<sup>2</sup>

Institution: 1 Department of plastic and reconstructive surgery, Aalborg university hospital, 2 Department of Clinical medicine.

### **Abstract**

#### ***Objective:***

In post bariatric surgery there is a high risk of complications, also with regards to coagulation and fibrinolysis. This tendency may be related to the surgery itself, anatomical features in the resected tissue, or altered coagulation, perhaps due to the catabolic state of the patient or malnutrition. Unfortunately, coagulation and fibrinolysis in patients undergoing corrective surgery after weight loss is not well described in scientific literature.

The aim of this study was to describe the effect of surgical trauma on coagulation and fibrinolysis in corrective surgeries after weight loss.

#### ***Methods:***

Haemostatic parameters were assessed pre- and postoperatively in patients scheduled for removal of excess skin after weight loss. Height, weight and weight reduction was registered, as well as days of hospitalisation and any post-operative complications.

The protocol/project was registered in the research registry (Datatilsynet). Patients were informed and signed an informed consent form to be included. As the study was descriptive, and did not interfere with treatment, the scientific ethical committee did not require registration.

#### ***Results:***

8 patients were included. 4 were discharged the next day, 3 after 2 days, and one after 4 days. None of the patients were registered with haematoma, needed re-operations or transfusions.

We observed a slight decrease of haemoglobin and an effect on haemostatic parameters ie. increase of fibrinogen and activated partial thromboplastin time.

### ***Conclusion:***

We observed an effect of the surgical trauma on the haemostatic parameters postoperatively with consumption of coagulation factors, prolonged activated partial thromboplastin time and increased fibrinogen. Considering these effects, and known increased complication rates in this group of patients, it is of importance to consider haemostatic function prior to corrective surgeries after weight loss.

6.

**AUTHORS:** Navid M. Toyserkanj, Jens Ahm Sørensen

**INSTITUTION:** Department of Plastic and Reconstructive Surgery, Odense University Hospital, Denmark

**TITLE:** Medial sural artery perforator flap: A challenging free flap

### **AIM/BACKGROUND:**

Oral and extremity defect reconstruction can often require a flap that is thin and traditionally the radial forearm free flap has been used however this has significant donor site morbidity. Over the last decade the medial sural artery perforator (MSAP) flap has emerged as a possible alternative with lower donor site morbidity. We present our experiences and review the literature regarding this promising but challenging flap.

### **MATERIAL AND METHODS:**

The study was a retrospective case series in a university hospital setting. All patients who had a MSAP flap performed at our institution were included until October 2014 and their data was retrieved from electronic patient records.

### **RESULTS:**

In total nine patients were reconstructed with a MSAP flap for floor of mouth (eight) and lower extremity (one) defect reconstruction. The median flap dimensions were as follows: 9 cm (range 7-12 cm), width 4.5 cm (range 3.5-6 cm), thickness 5 mm (range 4-8 mm) and pedicle length 10 cm (range 8-10 cm). In one case the procedure was abandoned because of very small perforators and another flap was used. In two cases late onset of venous congestion occurred which could not be salvaged. There were no donor site complaints.

### **CONCLUSION :**

The MSAP flap is an ideal flap when a thin free flap is needed with lower donor site morbidity than alternative solutions. There seems to be a higher rate of late onset of venous thrombosis compared with more established flaps which must be taken into account. We propose performing two venous anastomoses to prevent late onset of venous congestion.

7.

Dept. of Plastic- and Breast Surgery, Aarhus University Hospital, Nørrebrogade

Authors: Rikke Falsig Vestergaard, MD. PhD, Gitte Hougaard MD

Short-term experience using Caprini Score for standardized evaluation of the risk of postsurgical thromboembolic events in a Danish plastic surgery population.

### Background

Recently, more focus has been directed towards prophylactic treatment of postsurgical thromboembolic complications. Several Danish surgical specialties have specific guidelines for this purpose. This is not the case for plastic surgery.

The Caprini Score was developed as a tool for surgeons to allow for easy, clinical evaluation of post-operative risk of thromboembolic complication. A validated version designed for plastic surgery has been developed and is in use abroad.

We propose the use of the Caprini Score for evaluation of postoperative risk of thromboembolic complications in a Danish plastic surgery population.

### Material and methods

For 1 month (March 2016) patients admitted to the Dept. of Plastic and Breast Surgery, AUH undergoing surgery in general anesthesia were scored using Caprini Score.

### Results

The results presented here represent a preliminary account. Data for a total of three months will be ready at the time of presentation.

Group 1 (no prophylactic treatment) included 2% of the patients, group 2 (3-5 days of Innohep) included 71% and group 3 included 27% (28 days of prophylactic treatment).

The total number of diagnosed thromboembolic events in March 2016 was 1.

### Conclusion/discussion

The Caprini Score is an easy and efficient tool for estimation of postoperative risk of thromboembolic events. More data is needed to show if treatment according to the score leads to a significant reduction in thromboembolic complications.

There are some concerns that must be addressed when using this system. Firstly, when evaluating whether or not the patient is receiving major surgery it may be prudent to look at more than just the duration of the surgery. Secondly, using the Caprini Score may lead to defensive medicine meaning the incapability of the surgeon to bypass the result if deemed necessary.

A national Danish plastic surgery guideline would be an excellent way of addressing the mentioned problems.

8.

**Abstract:**

Assessment of burn size in obese adults; a literature review.

Kaveh Borhani MS, Søren Partoft MD, Rikke Holmgaard MD, PhD

**Introduction:** Relevant literature regarding the estimation of burn areas in obese patients is sparse and an adjustment of the existing estimation methods used to assess burns in this group of patients may be required. This systematic review aims to provide an overview of the current literature on assessment of burn size in obese adults.

**Background:** The worldwide prevalence of obesity has nearly doubled from 1980 to 2008. However, the traditional methods to estimate burn size do not consider the patient's body mass - potentially resulting in incorrect fluid resuscitation or incorrect referral to the burn units.

**Methods:** A systematic review was conducted using relevant electronic databases. The initial search yielded 247 results. Relevant articles were reviewed in full. A total of 8 publications fulfilled our inclusion criteria.

**Results:** The palmar surface area (PSA) ranged between 0.6-1.22% depending on BMI, gender and ethnicity. The surface area of each arm, each leg and trunk compromise 5-7.5%, 15-20% and 40-52% of the total body surface area (TBSA) respectively in obese or morbidly obese individuals.

**Conclusions:** The current methods for estimating the burned surface area in patients suffering from burn injuries cannot be used in obese burn patients. No extrapolation technique exists and the assessment will be inaccurate unless the existing methods are modified.

9.

**Authors:** Alexander Andersen Juhl<sup>1</sup>, Páll Karlsson<sup>2,3</sup>, Tine Engberg Damsgaard<sup>1</sup>

**Institution:** <sup>1</sup>Plastic Surgery Research Unit, Department of Plastic and Breast Surgery, Aarhus University Hospital. <sup>2</sup>Danish Pain Research Center, Aarhus University Hospital. <sup>3</sup>Stereology and Electron Microscopy Laboratory, Aarhus University Hospital.

**Title:** Fat grafting as treatment for persistent pain after breast cancer treatment - a randomized controlled clinical trial.

**Aim/Background:**

Persistent pain is a common side effect to breast cancer treatment, affecting 24-52% of women after a mastectomy. Recent studies have described an analgesic effect of autologous fat grafting in other settings. The current study aimed to investigate whether fat grafting had an analgesic effect on persistent pain after mastectomy.

**Material and Method:**



Included patients were randomized to either fat grafting to the pain afflicted area around the missing breast, or to a control group without any intervention. A total of 18 unilaterally mastectomized women with persistent pain  $\geq 3$  on the numerical rating scale were enrolled. Patients were examined at baseline and at three and six months, using the Visual Analogue Scale (VAS) pain score, the DoloTest<sup>®</sup> and the Neuropathic Pain Symptom Inventory. The effect of fat grafting on the pain measures were statistically investigated with multivariate repeated measurements analysis of variance with time, treatment and the interaction between them as factors

### **Results:**

A total of 15 patients were analyzed (fat grafted n=8, control n=7). The average amount of grafted fat was  $71 \pm 24.6$  ml. No complications to the procedure were observed. Fat grafting significantly reduced the VAS score over time ( $p=0.001$ ). Fat grafted patients experienced a mean reduction of 36 points on the VAS, corresponding to a 55% average reduction. Furthermore, statistically significant improvements in the Neuropathic Pain Symptom Inventory score ( $p=0.002$ ) and in the DoloTest<sup>®</sup> score ( $p=0.007$ ) was observed for the fat grafting group.

### **Discussion/Conclusion:**

This is the first randomized controlled trial investigating the analgesic effect of fat grafting. Fat grafting appears to be an effective technique for alleviating persistent pain after mastectomy. Although statistically significant, the results must be interpreted with caution due to the small sample size.

10.

## **The Subclonal Structure and Genomic Evolution of Oral Squamous Cell Carcinoma Revealed by Ultra-deep Sequencing**

Siavosh Tabatabaeifar<sup>a,b,d</sup>, Mads Thomassen<sup>b,d</sup>, Martin J. Larsen<sup>b,d</sup>, Stine Rosenkilde Larsen<sup>c,d</sup>, Torben A. Kruse<sup>b,d</sup>, Jens A. Sørensen<sup>a,d</sup>.

Departments of <sup>a</sup>Plastic Surgery, <sup>b</sup>Clinical Genetics and <sup>c</sup>Clinical Pathology, Odense University Hospital, Odense, Denmark; <sup>d</sup>University of Southern Denmark, Institute of Clinical Research, Odense, Denmark.

**Background:** Oral squamous cell carcinoma (OSCC), a subgroup of head and neck squamous cell carcinoma (HNSCC), is primarily caused by alcohol consumption and tobacco use. Recent DNA sequencing studies suggests that HNSCC are very heterogeneous between patients; however the intra-patient subclonal structure remains unexplored due to lack of sampling multiple tumor biopsies from each patient.

**Materials and methods:** To examine the clonal structure and describe the genomic cancer evolution we applied whole-exome sequencing combined with targeted ultra-deep targeted sequencing on biopsies from 5 stage IV OSCC patients. From each patient, a series of biopsies were sampled from 3 distinct geographical sites in primary tumor and 1 lymph node metastasis. A whole blood sample was taken as the matched reference.

**Results and discussion:** Our results demonstrate that ultra-deep sequencing gives a level of unprecedented high resolution enabling clear detection of subclonal structure and observation of otherwise undetectable mutations. Furthermore, we demonstrate that OSCC show a high degree of inter-patient heterogeneity but a low degree of intra-patient/tumor heterogeneity. However, some OSCC cancers contain complex subclonal architectures comprising distinct subclones only found in geographically distinct regions of the tumors. The metastatic potential of the tumor is acquired early in the tumor evolution, as indicated by the lymph node sharing the majority of the mutations with the tumor biopsies, while rarely acquiring novel mutations that are specific for the metastasis.

**Conclusion:** Ultra-deep sequencing of multiple biopsies from OSCC and metastasis enables detection of subclonal structure and genomic evolution. The metastatic potential of OSCC is acquired early in the tumor evolution, and our results indicate that the tumor may not need to acquire additional alterations for it to be able to metastasize and adapt to its new lymph node surroundings.

11.

Abstract til DSPR forårsmøde 2016

Liv Schøllhammer, Karin Dahlstrøm og Lisbet Rosenkrantz Hölmich

Plastikkirurgisk afdeling, Herlev-Gentofte Hospital

**Erfaringer fra kursusrækken ”Tankerne på plads og hverdagen tilbage” - de psykosociale aspekter af en malign melanom diagnose.**

Baggrund:

I sidste halvdel af 2015/primo 2016 blev det nye follow-up program for malignt melanom implementeret i Danmark. Patienter med T1a tumorer vil generelt ikke længere blive fulgt i kontrolforløb, men anbefales regelmæssig ”selv-kontrol” og at søge læge ved symptomer.

I højere grad end tidligere, har opfølgingsprogrammet fokus på de psykosociale følger, som melanomdiagnosen kan have. For at imødekomme dette behov, har vi udviklet et kursus i samarbejde med Kræftens Bekæmpelse, som tilbydes ny-diagnosticerede melanompatienter og patienter i kontrolforløb. Kurset fokuserer på uddannelse af patienterne omkring melanom, udvikling af sund opmærksomhed på hud og symptomer

på recidiv, solvaner samt værktøjer til at tackle psykologiske følgevirkninger af en cancerdiagnose.

### Materiale og metode:

Opmærksomhed om tilbuddet er skabt ved opslag i ventearealet på Plastikkirurgisk afdeling, mundlig omtale og udlevering af brochure ved ambulante besøg samt via Kræftens Bekæmpelses- og NeMos (Netværk for Modermærkekræft) hjemmesider. Inklusionskriterier har ændret sig lidt undervejs. Fra tidligere at have været et tilbud til alle melanompatienter, optages nu kun patienter med stadie I-III tumorer. Kursusrækken har fulgt en skabelon, udviklet i Ålborg og beskrevet i forbindelse med et projekt, finansieret af Trygfonden.

I alt 34 patienter har deltaget i et af 4 kurser a 4 sessioner, a 3 timers varighed.

### Resultater og diskussion:

De generelt meget positive tilbagemeldinger fra patienterne må tages som udtryk for, at der, i hvert fald hos nogle melanompatienter, er et uopfyldt behov for psykosocial støtte og mere information om sygdommen. Konceptet for kursusrækken er velafprøvet i forbindelse med udviklingsfasen i Aalborg. Erfaringerne fra kurserne kan benyttes til kvalificering af det daglige tilbud i de plastikkirurgiske/ onkologiske afdelinger.

Cases

### ***12. Vismodegib and surgery combined - effective treatment of locally advanced basal cell carcinoma***

Authors: Jakob F. Paulsen, Jógvan S. Øregaard, Anni L. Nielsen, Julie Gehl, Alessandro Venzo

Institution: Rigshospitalet, Klinik for Plastikkirurgi, Brystkirurgi og Brandsårsbehandling

Key words: Basal cell carcinoma, Vismodegib, ALT flap, depression

**Background.** Basal cell carcinoma is the most common skin cancer and surgical resection is usually first choice. When left untreated it can become locally invasive and destructive. Vismodegib is a smoothed inhibitor and a new type of targeted therapy for advanced basal cell carcinoma. It was approved by the FDA in 2012 after promising results in phase 1 and 2 studies.

**Results.** It is a case of a male patient suffering from depression and a basal cell carcinoma (BCC). The tumor had developed over a 20-year period, leading to involvement of the left eye and surrounding area. At first, he declined surgical resection and had relapse after radiation treatment. After the approval of Vismodegib he received an oral dose of 150mg/day for 10 months. The BCC

shrunk more than 80 %. The regression of the tumor created trust between patient and his physician leading to definite surgical resection. The defect was covered with an ALT flap. The pathological report indicated no signs of BCC.

**Conclusion.** In conclusion, we found that Vismodegib in this case offered a relatively safe therapeutic treatment for locally advanced BCC that was not primarily eligible for surgery. Vismodegib is not only an efficient drug, but can also serve as an access in treating an otherwise reluctant patient. The adverse effects were acceptable and response was exceptional.

13.

Authors: Jógvan S. Øregaard<sup>1</sup>, Werner Hettwer<sup>2</sup> and Barbara Jemec<sup>1</sup>

Institution: <sup>1</sup>Department of Plastic Surgery, Breast Surgery and Burns Treatment, Rigshospitalet.

<sup>2</sup>Department of Orthopedic Surgery, Rigshospitalet.

Title: Abdominal wall reconstruction with Strattice after iliac crest tumour removal

Aim/background: Abdominal defects are challenging both with regards to morbidity and surgical solutions. Usually large defects are repaired by use of a mesh and possibly a muscular component separation. Synthetic mesh materials have been widely used as have biological materials but the latter are sometimes more suitable, as they can tolerate infection and are incorporated into the host, thereby also making follow-up scans more readily interpretable. Biological materials are of human origin (e.g. Alloderm®, FlexHD®) or xenografts (Strattice®, Permacol®, Tutopatch®).

Material and method: Single patient case study. A 38 year old female with a history of breast cancer was found to have a solitary bone metastasis in the left iliac crest on CT and MRI. The patient underwent resection of the metastasis from the iliac crest, as well as removal of the attachment of the abdominal wall musculature to the iliac crest, leaving a 10 x 6 centimeter defect in the abdominal wall with a subsequent potential for herniation. The defect in bone and soft tissue was adequately reconstructed with a Strattice inlay mesh which was sutured to the bone and muscle. Pathology confirmed a metastasis originating from invasive ductal carcinoma.

Results: When a large section of the iliac crest is resected, successful abdominal wall reconstruction and prevention of herniation can be achieved by the use of a Strattice inlay mesh.

Discussion/conclusion: Strattice inlay mesh is an excellent choice for reconstruction of the abdominal wall in cases where bone resection is performed in pelvic region.

14.

Forfattere: Jógvan Suni Øregaard, Jakob Felbo Paulsen, Jens Jørgen Elberg, Mette Wolters

Institution arbejdet udgår fra: Plastikkirurgisk afdeling, Rigshospitalet.

Titel: Iglebehandling af underekstremitet hos neonatal patient med komplet trombosering af vena femoralis.

Formål/Baggrund: At belyse effekten af iglebehandling ved akut venøst staset underekstremitet.

Materiale og metode: Patientcase. 7 uger gammel dreng blev akut indlagt med cirkulatorisk kollaps. Præhospitalt fået anlagt intraossøs adgang og forsøgt kanyleret i v. femoralis. Ved initial vurdering i traumecentret blev der konstateret kardiell hypertrofi og svær aortastenose. Endvidere trombose i venstre v. femoralis og kliniske tegn på compartment syndrom i ve. underekstremitet, hvilket medførte at fasciotomi blev foretaget. Patienten havde svær venøs stase af venstre underekstremitet, mest udtalt under knæniveau og iglebehandling blev påbegyndt. Eftersom patienten også var i behandling med heparin afstedkom dette voldsom transfusionskrævende blødning. Heparininfusion blev herefter stoppet og man valgte at komprimere i stedet. Alternativet var amputation på femurniveau. Patienten blev herefter hæmodynamisk stabiliseret. Der var spredte nekroser på crus som blev delhudstransplanteret. På grund af cicatricielle gener blev der 5 måneder senere foretaget en cross-over lap fra modsidige crus.

Resultater: På trods af profus blødning og svær venøs stase undgik patienten amputation og har i dag god funktion af underekstremiteten.

Diskussion/Konklusion: Iglebehandling af svært venøs staset underekstremitet kan medføre profus blødning, i dette tilfælde var det betinget af samtidig behandling med heparin. For at afhjælpe stase var det indiceret med iglebehandling og denne havde god effekt. Grundet den voldsomme blødning blev der valgt konservativ tilgang med kompression og tilstanden stabiliseredes.

15.

Albertsdottir E, Christiansen KØ, Juel J

Department of Plastic surgery, Aalborg University Hospital

## **A case report of synchronous quadruple primary cancers in a single patient including breast cancer, cervix cancer, melanoma and multiple basal cell carcinoma.**

### **Abstract**

**Background:** Patients diagnosed with quadruple synchronous cancers are extremely rare and we herein present, to the best of our knowledge, the first case to be reported of synchronous quadruple primary cancers of the cervix, breast, melanoma and multiple basal cell carcinoma.

### **Case presentation:**

A 70-year-old woman was diagnosed with cervix adenocarcinoma, malignant melanoma on right lower extremity, invasive ductal cell carcinoma metastasis in the left axilla where no primary

tumor was found and multiple basal cell carcinomas on the extremities. The patient was diagnosed with all four cancers within a period of two months. The patient has no family history of cancer but suffers from high blood pressure and had an acute myocardial infarction 23 years ago.

The treatment was carried out in collaboration between six medical specialties. The surgical treatment was laparoscopic radical hysterectomy, bilateral salpingo-oophorectomy and radical excision of the iliac lymph nodes, excision of malignant melanoma on right lower extremity and sentinel node diagnostic, excision of basal cell carcinomas on extremities and radical excision of lymph nodes in left axilla. Currently the patient is undergoing medical treatment for her breast cancer and there are no signs of recurrence or further metastasis nor other primary cancers at this time.

### **Conclusion:**

When determining the treatment of a patient with multiple cancers it is important to evaluate the location, stage and prognosis of each primary cancer. Also the possibility of a genetic mutation linking the cancers or other potential cancers has to be explored. A joint effort of several medical fields is required to treat and monitor cases such as this. It therefore highlights the significance of treating the patient in a broader sense rather than employing the tunnel vision approach to treatment that is often the result of highly specialized medical field training.

16.

Authors:

Heidemann, LN (MD)<sup>1</sup>, Johansen J (MD, PhD)<sup>2</sup>, Larsen, SR (MD)<sup>3</sup>, Sørensen JA (Professor, MD, PhD)<sup>1</sup>

<sup>1</sup>Dept. of Plastic and Reconstructive Surgery, Odense University Hospital

<sup>2</sup>Dept. of Oncology, Odense University Hospital

<sup>3</sup>Dept. of Pathology, Odense University Hospital

Title:

Four synchronous cancers in a patient with tongue pain as only symptom.

Aim/background:

Cancer of the head and neck region remains a significant cause of morbidity and mortality, and a high incidence of second primary carcinomas in this region seems to play an important role in the disease burden. Synchronous carcinomas may be present in up to six percent of patients with head and neck squamous cell carcinoma (HNSCC) and are most often located in the head and neck area,

lung, and esophagus. This case report illustrates the importance of thorough examination of these patients.

Case:

This patient presented with three synchronous squamous cell carcinomas, two in the tongue and one in the aryepiglottic fold. Detection of three adjacent SCCs in the upper aerodigestive tract is in accordance with the concept of field cancerization. PET-CT was required for the detection of the carcinomas as the initial MRI and CT scans were inconclusive due to dental artifacts. Furthermore, PET-CT also revealed increased metabolic activity in the lymph nodes of the neck which subsequently lead to detection of a low-grade follicular lymphoma in addition to the squamous cell carcinomas.

The patient was surgically treated with resection of the primary tumour including ipsilateral neck dissection and subsequently received adjuvant radiotherapy. The patient had full compliance to treatment and follow-up examinations have not shown signs of recurrence.

Conclusion

These findings support a generous use of PET-CT in patients with HNSCC, at least in those with obvious risk factors.

17.

## EXAIRESE HOS 93-ÅRIG OG PRÆSENTATION AF LYMFEKNUDE MED METASTASER FRA TO CANCERE

Jacob Juel, læge, ph.d.-studerende<sup>1</sup>, Vibeke Koudahl, afd. læge, ph.d.<sup>1</sup> og Giedrius Salkus, overlæge<sup>2</sup>

1           Plastikkirurgisk Afdeling  
Aalborg Universitetshospital  
Sdr. Skovvej 3  
9000 Aalborg, Danmark

2           Patologisk Institut  
Aalborg Universitetshospital  
Ladegårdsgade 3  
9000 Aalborg, Danmark

### ABSTRACT (292 ord)

#### *Baggrund*

Hvordan håndteres kirurgisk behandling af ældre med cancer? Der skal vælges mellem kirurgiske og medicinske behandlinger. Illustrativt for denne problematik præsenteres en kasuistik, hvor en 93-årig patient med stationær cancer mammae (CM), som progredierer sammen med malignt melanom (MM) recidiv, behandles kirurgisk.

### *Materiale*

En 93-årig kvinde indlagdes i 2014 med febris e causa ignota. På mistanke om infektion udførtes CT-skanning. Et bifund var malignsuspekterede forandringer i columnae. Efter nærmere udredning diagnosticeredes patienten med CM i form af dissemineret lobulært karcinom med knoglemetastaser og MM på venstre nates (Breslow 6,8 mm, 15 mitoser pr. mm<sup>2</sup>). Patienten begyndte medicinsk behandling for CM med aromatasehæmmer og osteoklasthæmmende antistof, mens MM behandledes med excision i samlet 20 mm afstand. Patienten afstod fra sentinel node diagnostik. Hendes CM forblev uden yderligere progression på medicinsk behandling. I 2016 rejstes mistanke om recidiv af MM på grund af hurtigt voksende tumores på venstre nates og i venstre lyske. Patienten var fortsat cerebralt velbevaret, bosiddende i sit eget hjem og alment velbefindende fraset tiltagende gener fra tumores. I samråd med patienten blev excision af tumor på venstre nates og lyskeexairese udført. Peri- og postoperativt forløb var ukompliceret, og patienten blev udskrevet til eget hjem.

### *Resultater*

Histologisk undersøgelse viste blandet lymfeknudemetastase fra malignt melanom og invasivt lobulært karcinom udgående fra mamma samt lokal subkutan metastase fra malignt melanom.

### *Diskussion*

I Danmark lever vi relativt længe. Derfor er problemstillingen med flere og ofte velbehandlede cancere hos velbevarede ældre formentlig hyppig. Behandlingen bør sandsynligvis individualiseres. Kasuistikken illustrerer med stationær CM, som progredierer lokalt sammen med MM med mulig baggrund i interaktion mellem cancere, problematikken. Efter forfatterens bedste overbevisning er dette første gang, at metastatisk sygdom i samme lymfeknude fra mere end én cancerform præsenteres. Der findes ingen beskrivelser i *PubMed* eller *EMBASE*.

18.

## **Cervical Chondrocutaneous Branchial Remnants – a case report**

Lea Juul Nielsen, Kasper Von Rosen, Linda Plovmand Jacobsen

Klinik for Plastikkirurgi, Brystkirurgi og Brandsårsbehandling, Rigshospitalet.

### **Abstract**

**Introduction:** Cervical chondrocutaneous branchial remnants (CCBRs) are rare, benign neck tumors, first reported in 1858. The lesions are present at birth and exhibit no, or very slow, growth. They are typically located in the middle or lower third of the neck, anterior to or over the



sternocleidomastoid muscle. They consist of normal skin with a cartilage core. No connection to underlying deep structures has been reported. Histologically CCBRs are defined as choristomas.

**Aim:** The embryogenesis, histology, familial association and association with other anomalies is discussed and related to the presentation of a case of a 5-year old, otherwise healthy, boy with bilateral cervical chondrocutaneous branchial remnants.

**Material and method:** A review of the relevant literature as well as a case report is presented.

**Results:** To date 104 cases have been reported, 28 with bilateral lesions. We have found a further 13 cases (6 bilateral) totaling 117 cases. Until now a marked predominance of males has been reported, but in a recent review no gender predisposition was found which was confirmed in the present literature search. The pathogenesis is controversial, but CCBRs are by most believed to be remnants from the second branchial arch. CCBRs have proven to be visible markers for more serious gastrointestinal, genitourinary, cardiovascular and complex anomalies. No malignant transformation has been reported, neither has recurrence after simple surgical removal.

**Conclusion:** Cervical Chondrocutaneous Branchial Remnants are rare, benign, malformations usually found in the lower neck, consisting of normal skin with a cartilage core. Since CCBRs has been associated with other anomalies, a thorough physical examination and ultrasound of the abdomen and heart is recommended. Treatment is simple surgical excision.

19.

## **Hemihyperplasia – a case report, diagnostic considerations and treatment strategies.**

Lea Juul Nielsen og Lisa Toft Jensen

Klinik for Plastikkirurgi, Brystkirurgi og Brandsårsbehandling, Rigshospitalet.

### **Abstract**

**Introduction:** Hemihyperplasia is clinically defined as an asymmetric overgrowth of one or more body parts, involving the entire half of the body, a single limb, the face or combinations hereof. There may be accompanying visceromegaly. Hemihyperplasia may be an isolated finding or part of a variety of syndromes.

**Aim:** To present a case a case of a 36-year old man with hemihyperplasia and to discuss possible diagnoses and treatment options.

**Material and Method:** A literature review on diagnostic considerations and treatment strategies regarding hemihyperplasia, as well as a case report, is presented.

**Results:** A 36-year old man with hemihyperplasia of the right lower extremity and no known syndrome or other pathology, is presented. Multiple syndromes as well as isolated hemihyperplasia should be considered when faced with a patient with hemihyperplasia and all patients should be referred for genetic testing. Routine scans are recommended for specific tumors in childhood. Treatment options are purely symptomatic and consist of orthopedic procedures as well as plastic surgical procedures such as liposuction and surgical removal of excess tissue. The patient in the presented case has undergone multiple surgeries including the amputation of a toe, liposuction and excision of excess skin.

**Conclusion:** Hemihyperplasia is an asymmetric overgrowth of one or more body parts associated with multiple syndromes. Patients should be referred for genetic testing and further investigations for other pathologies. The treatment options are purely symptomatic.

20.

**Forfattere:** Thomas Foged, Tine E. Damsgaard

**Institution arbejdet udgår fra:** Plastik- og Brystkirurgi, Aarhus Universitetshospital.

**Titel:** Rekonstruktion af myelomeningocele med anvendelse af amniongraft.

**Formål/Baggrund:** Rekonstruktion af myelomeningocele (MMC) kræver passende vævsdække over duraplastikken for derved at mindske risikoen for CNS-infektion. Dette foretages fx med en lokal lapplastik og kan kombineres med anvendelse af acellulær dermal matrix (ADM) som forstærkning mellem dura- og lapplastikken.

Vi vil beskrive en case, hvor vi har anvendt et alternativ til allerede kendte ADM-typer, som er både autologt og omkostningsfrit.

**Materiale og metode:** Pige født i uge 38+1 ved elektiv sectio efter fund af lumbal MMC i forbindelse med en rutine UL-scanning i uge 20. Fødselsvægt 2.990g, længde 50cm og hovedomfang 34,7cm. Derudover hydrocephalus, hypertone underkstremiteter og klumpfødler. Ingen andre malformationer eller syndromer. I forbindelse med sectio rumperer MMC.

Ved det elektive sectio blev amnionhinden høstet og efterfølgende opbevaret ved 5°C indpakket i en saltvandsgaze indtil det skulle bruges. Dagen efter blev pigen opereret for hendes hydrocephalus samt MMC. Amniongraften blev lagt oven på duraplastikken, og syet fast i hjørnerne inden huddefekten blev lukket med en fasciokutan transpositionslap (Limberg).<sup>1,2</sup>

**Resultater:** Det postoperative forløb var roligt, og der var ingen umiddelbar sivning fra det rekonstruerede område. Pigen er endnu ikke set til 6 måneders kontrol. På baggrund af omfanget af MMC mistede hun desværre nerveforsyningen til underekstremiteterne.

**Diskussion/Konklusion:** Amniongraft er et oplagt valg fremfor kendte ADM ved rekonstruktion af MMC, idet det er autologt og omkostningsfrit. Det kræver tæt samarbejde mellem obstetriker, neurokirurg og plastikkirurg i forbindelse med planlægning af høstning, opbevaring og anvendelse af amniongraften.

### Referencer:

1. Hasegawa M, Fujisawa H, Hayashi Y, Yamashita J: Autologous amnion graft for repair of myelomeningocele: technical note and clinical implication. J Clin Neurosci 11(4): 408-11, 2004
2. de Weerd L, Weum S, Sjøvik K, Acharya G, Hennig RO: A new approach in the repair of myelomeningocele using amnion and a sensate perforator flap. J Plast Reconstr Aesthet Surg 66(6): 860-3, 2013.

21.

### Forfatter:

Hans Henrik Møller Nielsen Læge PhD

### Institution:

Plastik- og brystkirurgi

Aarhus Universitetshospital, NBG

### Titel:

Erfaringer fra et plastikkirurgisk fellowship i Melbourne, Australien.

### Baggrund:

Som plastikkirurgisk fellow i 12 måneder opleves et sundhedssystem på nærmeste hold.

Det australske sundhedsvæsen er stærkt inspireret af det engelske system med konstant fokus på høj kvalitet, læring og udvikling.

Foredraget vil indeholde faglige og personlige erfaringer fra 12 måneder i Melbourne, herunder cases og gennemgang af ansøgningsproces.

## **Konklusion:**

Et udenlandsk fellowship kan højne ens faglige niveau markant, ændre ens tilgang til faget samt give personlige oplevelser for livet.

22.

Great Ormond Street Hospital for Children,  
Plastic and Reconstructive Surgery Department

Joachim Mikkelsen, reservelæge

I perioden Oktober 2015 - Marts 2016 var jeg ansat som reservelæge ved Plastic and Reconstructive Surgery Department på Great Ormond Street Hospital for Children i London.

Hospitalet er internationalt anerkendt for sin højt specialiserede og innovative behandling af pædiatriske patienter indenfor alle specialer, herunder plastik- og rekonstruktionskirurgi.

Gennem seks måneder har jeg oplevet at arbejde med højt specialiseret plastikkirurgi inkl. håndkirurgi og kranio-facial kirurgi, i et lille, tæt og internationalt team bestående af overlæger, fellows og uddannelsessøgende læger.

Jeg har behandlet patienter med syndromer og tilstande jeg sandsynligvis aldrig kommer til at se igen, jeg har oplevet hvor udfordrende de pædiatriske plastikkirurgiske patienter til tider kan være, og jeg har fået erfaring med og lært at arbejde i et sundhedssystem som på mange punkter efter min mening er det danske underlegent.

Dette er min oplevelse som international læge i plastikkirurgi.

23.

European Master's Degree in Surgical Oncology, Reconstructive and Aesthetic Breast Surgery

Tine Engberg Damsgaard, MD, PhD, consultant, associate professor

Plastic Surgical Research Unit, Plastic and Breast Surgery, Aarhus University Hospital

*The Master's Degree - In search of excellence in breast surgery*

*Aim*

To provide the master's student skills and knowledge in oncology, reconstructive and aesthetic breast surgery.

*Methods*

A two year educational program equivalent of 90 ECTS points.

The first year consists of a module based practical and theoretical education, taking place in Strasbourg, Zürich, London, Paris, Milan, Alicante and Barcelona. Where relevant the modules are shared with the

students of the International Master's Degree of Reconstructive Microsurgery. Each of the modules are evaluated with either a practical test (microsurgery) or a MCQ.

The two co-directors Jaume Masia and Jian Farhadi together with the faculty of Christina Carusi, Nicolas Leymarie, Sinnika Suominen and Koenraad van Landyut delivers

professional development opportunities for every level of surgical experience.

The student is provided with world class training with teaching of the highest clinical and scientific level.

During the second year of the Master the students do the clinical immersion and an experimental or clinical research project.

#### *Presentation*

Will cover all aspects of application, financing, content and clinical immersion

#### *Conclusion*

To be awarded this Master's degree, trainees must complete all the modules, pass the

practical assessment, complete the clinical immersion and present a research project. The degree is recognized by the Universitat Autònoma de Barcelona.