Authors: Andreas Engel Krag[1], Gete Toft Eschen[1], Tine Engberg Damsgaard[1], Mille Sværdborg[1], Torben Steiniche[2], Birgitte Jul Kiil[1].

Institution: 1) Department of Plastic Surgery, Aarhus University Hospital, 2) Institute of Pathology, Aarhus University Hospital.

Title: *Remote Ischemic Perconditioning Attenuates Reperfusion Injury of Experimental Musculocutaneous Flaps*

Aim/background:
Skeletal muscle tissue is at risk of acute inflammation and necrosis after long periods of ischemia. In free flap reconstruction and replantation of amputated limbs, prolonged ischemia time can lead to flap or replantation failure.
Hypothermia prolongs the critical ischemia time of tissues. Furthermore, brief periods of ischemia and reperfusion in one vascular bed have been shown to generate global protection of tissues and organs subject to ischemia-reperfusion injury. This procedure is termed remote ischemic perconditioning (RIPER). The aim of the present study was to investigate methods to reduce acute inflammation following ischemia-reperfusion injury of musculocutaneous flaps. In a porcine model, the effects of normothermic ischemia, hypothermic ischemia, and RIPER on acute inflammation were investigated and compared.

Materials and Methods:
In 24 pigs a musculocutaneous latissimus dorsi flap was dissected and subjected to four hours of arterial ischemia and seven hours of reperfusion. The animals were allocated to three experimental groups: Normothermic ischemia (n = 8), hypothermic ischemia at 4 °C (n = 8), and normothermic ischemia with RIPER by hind limb ischemia (n = 8). Acute inflammation was measured by secretion of inflammatory cytokines (IL-1β, IL-6, IL-10, IL-12p40, and TNF-α) from the flap during reperfusion, and by quantitative determination of macrophages in flap biopsies of dermis, the subcutaneous tissue, and skeletal muscle following reperfusion.

Results:
No significant differences were found between normothermic and hypothermic ischemia in inflammatory cytokine secretion. However, the secretion of IL-6 and IL12p40 were significantly reduced in the group with RIPER, compared to normothermic and hypothermic ischemia groups at some time points during reperfusion. The macrophage area fraction in skeletal muscle samples was lowest in the RIPER group.

Discussion/Conclusions:
The results indicate that RIPER attenuates reperfusion injury of porcine musculocutaneous flaps compared to hypothermic ischemia and normothermic ischemia without RIPER.

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Authors: Navid M. Toyserkani, Jens A. Sørensen

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

TITLE:
Reconstruction of calvarial and scalp defects using Anterolateral thigh free flaps: A case series.

AIM/BACKGROUND:
Regardless of underlying cause calvarial and scalp reconstruction can be a challenging task. With increasing defect size the local options also decrease and in moderate to large sized defects a free flap reconstruction is usually required. Since 2007 we have used the Anterolateral Thigh (ALT) flap as our flap of choice and we present our results with this flap.

MATERIAL AND METHODS:
The study was a retrospective case series in a university hospital setting. All patients who had this procedure performed were included until October 2014 and their data was retrieved from electronic patient records.

RESULTS:
In total eight patients were reconstructed with an ALT flap for calvarial (six) or scalp (two) reconstruction. The flaps used were fasciocutaneous (four), myocutaneous (three) and adipofascial (one). All patients were male with a mean age of 59 years. The median flap length was 22,5cm and median flap width was 8cm. All flaps survived. One patient was offered a revision procedure because of color mismatch but this was cancelled as the patient requested hair transplantation in a private setting. No donor site morbidity was noted in any patients.

CONCLUSION:
The ALT flap is very versatile and can be harvested in a number of different ways according to defect requirements. It has minimal donor site morbidity and is the optimal flap option for calvarial and scalp reconstruction although still insufficient regarding colour mismatch and lack of hair.

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Authors:
Anders Klit M.D.[a], Cecilie Brandt Lassen M.D.[a], Caroline Holkmann Olsen M.D.[b], Jørgen Lock-Andersen M.D., DMsc.[a]

[a]Department of Plastic Surgery, Roskilde University Hospital [b]Department of Pathology, Roskilde University Hospital

TITLE:
Cutaneous malignant melanoma: A Danish cross sectional study on patients and tumour characteristics.

Abstr act:
Background: The incidence of cutaneous malignant melanoma is rapidly increasing in Denmark, as well as in other northern and western European countries. The development is probably due to altered occupational and leisure sun exposure pattern. **Objectives:** To investigate the characteristics of current patients suffering from cutaneous malignant melanoma. **Methods:** In a cross-sectional study including all patients diagnosed with cutaneous malignant melanoma in health care region Zealand in 2012 and 2013 we investigated patient and tumour characteristics. **Results:** We found more females suffering from cutaneous malignant melanoma, females where younger than males and the anatomical distribution of malignant melanoma varied between the genders. Outcome of sentinel lymph node biopsy was associated to tumour thickness. We did not find any differences between genders concerning outcome of sentinel lymph node biopsy. Compared to two prior Danish studies from 1964-1982 and 1985-1995, a clear tendency to decreased tumour thickness was found as well as a more predominant localization on the trunk in both genders.

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Cutaneous malignant melanoma *in situ*. A Danish cross sectional study on patient and tumour characteristics in 144 cases.

Authors:
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[a]Department of Plastic Surgery, Roskilde University Hospital [b]Department of Pathology, Roskilde University Hospital Abstract

Background: Cutaneous malignant melanoma *in situ* (MIS) has not been subject to much attention or investigation. Little is known of the characteristics of patients and tumours. **Objectives:** To clarify important patient and tumour characteristics in patients treated for MIS. **Methods:** In a cross-sectional study including all patients diagnosed with MIS in Health care Region Zealand, Denmark, in 2012 and 2013 we investigated the patient and tumour characteristics. **Results:** We found that among

patients diagnosed with MIS there were more females than males. Males were older than females. Lentigo maligna cases were older than cases with superficial spreading MIS and were predominantly found n the head and neck region. The anatomical distribution of MIS varied from what is described for invasive cutaneous malignant melanomas and MIS cases were generally older than cases with invasive cutaneous malignant melanoma. Among patients treated for MIS 28% were previously treated for other skin malignancies.

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Forfattere: Introduktionsreservelæge Charlotte Fagerholt, Overlæge Lisbet Rosenkrantz Hölmich

Institution: Plastikkirurgisk Afd., Herlev Hospital

Titel: Melanom metastase i tyndtarm påvist ved FDG-PET-CT skanning og efterfølgende lokaliseret ved kapsel-endoskopi

Formål/baggrund:
Det er kendt, at maligne melanomer kan metastasere til tyndtarmsgebetet, hvilket kan detekteres ved hjælp af FDG-PET-CT scanning. Endoskopiske metoder som kapselendoskopi kan være velegnede til at visualisere en mere præcis lokalisation af PET-positiv suspekt tumor forud for kirurgisk resektion eller bioptering af tumor. Kapselendoskopi er en non-invasiv og skånsom metode til dette formål.

Materiale og metode:
Patientcase
45 årig kvinde, opereret for T2aN0M0 melanom. Efterfølgende fulgt i 3,5 år uden tegn på recidiv, hvorefter der findes metastasering til lymfeknude i venstre axil. begge lunger, cerebrum og cutis. Patienten blev opereret for metastaserne. Ved kontrol PET/CT scanning fandt man PET-positivt fokus i tyndtarmsgebetet, og for at komme lokalisation og diagnose nærmere, foretog man kapsel-endoskopi, der viste oplagt tumor 3 timer efter indtagelse af kapslen. Tumor skønnedes at sidde i nedre 1/3 af tyndtarmen. Ved efterfølgende koloskopi genfandt man tumor i anale del af ileum. Der foretoges biopsi og transluminal markering. Tumor blev efterfølgende receseret laparoskopisk, og præparatet viste metastase fra malignt melanom.

Konklusion:

Moderne billeddiagnostiske metoder tillader identificering og behandling af melanommetastaser før de giver symptomer. Selv om det intuitivt burde øge patientens overlevelseschancer, er dette endnu ikke vist. Men funktionstab og smerter kan begrænses ved tidlig diagnostik og behandling.

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Title
Results of surgical treatments and demography of non-melanoma skin cancer localized to the head and neck in patients treated at the Department of Plastic Surgery, Breast Surgery and Burns, Rigshospitalet, from 2006 to 2008.

Authors
Charlotte Caspara Uth, Dea Larsen, Annette Chakera and Krzysztof Drzewiecki.

Institution
Department of Plastic Surgery, Breast Surgery and Burns, Rigshospitalet.

Background
Non-melanoma skin cancer (NMSC) is the most common malignancy in Denmark with more than 10,000 patients in 2013. The present study describes demography, tumour characteristics and treatment of NMSC in the head and neck, with focus on earlier treatment and excision margins in relation to recurrence.

Methods
A total of 749 tumours – basocellular carcinomas (BCC) and spinocellular carcinomas (SCC) – were collected retrospectively using original data files. Information on the patients' ages, tumour characteristics, earlier treatments, surgical procedures, comorbidities, complication types and recurrences were recorded.

Results
The study included orginally 872 patients, 304 patients were excluded due to code errrors. The total group comprised 570 patients. 78% of the tumours were less than 20mm in diameter. 67.6% of the tumours were primary tumours whereas 32.4% had been treated before referral. After surgical excision in our department, 57 (7.6%) of the 749 tumours was followed by loco regional recurrence after average two years and eight months (range four months to eight years). According to earlier treatment, the recurrence rate for Imiquimod was 50%, PDT 14.3%, surgery 12.2%, and curettage, cryotherapy and electrodesiccation 7.5% in total. No recurrence was reported for earlier treatment with radiation after our surgical excision. 95.8% of the BCC were excised with less than 5mm's margins, 3.2% with 5-10mm's margins and for the SCC 27.4% with less than 5mm's margin and 71.3% with 5-10mm's margins.

The recurrence rate for BCC was 6.5% and 4.9% for SCC. 5mm's margins resulted in 10.5% recurrency and 5-10mm's margin in 10.7%. No recurrence was recorded for tumours excised with larger than 10mm's margins.

Conclusion
The surgical excision for NMSC tumours located in the head and neck should be analyzed further in order to determine the optimal trade-off between excision margins and recurrence. Moreover, treatment with Imiquimod resulted in a 50% recurrency rate.

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Vertikal abdominal plastik hos MWL patienter

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1) Mølholm Privat Hospital, 2) Mølholm Privat Hospital & Odense Universitetshospital,
3) Teres Colosseum Stavanger Privathospital, Norge

Formål/Baggrund
"Massive weight loss" (MWL) patienter har nødvendiggjort anvendelse af mere omfattende kirurgisk procedurer. "Fleur-de-lis"-teknikken anvendes hyppigt til patienter med øget epigastriel fylde. Formålet med denne opgørelse er at præsentere vores erfaring med en modificeret udgave af "Fleur-de-lis" teknikken, den vertikale abdominal plastik.

Materiale og metode
Vi har foretaget 35 vertikale abdominal plastikker fra maj 2014 til december 2015. Gennemsnitsalderen var 41 år (22-63). 5 patienter havde hypertension.
Den vertikale operationsteknik adskiller sig fra den vanlige fleur-de-lis teknik ved at størstedelen excideres vertikalt i stedet for horisontalt. Den præoperative vertikale optegning fortages med patienten liggende i sideleje, idet man forbinder processus xiphoideus til midten af mons pubis. Peroperativt fjernes vævet indenfor optegningen i niveau med scarpae's fascie. Formålet er at bevare den angiosombestemte blodforsyning til huden og at undgå underminering og deadspace.

Resultater
Det mediane BMI var 26 (22-30). Followup var gennemsnitlig 116 dage (65-209). Årsagen til det massive vægttab var gastic bypass 29 og diæt 6. Det mediane vægttab var 56 kilo (36-90) og BMI reduktion 20 (15-31). Mængde fjernet væv 1253

gram (456-4650). Den mediane operationstid 100 minutter (56-190) og den mediane dræn tid 1 dag (0-6), drænmængde 5 ml (0-400). Patienterne var indlagt i 1 døgn (0-1).
Der var ingen major komplikationer. De 8 minor komplikationer blev behandlet med peroral antibotika for let rødme i 5 tilfælde og tre havde overfladiske små sårdefekter i T-cicatricen ved 14 dages kontrol. Der var ingen tilfælde med serom eller hæmatom. Det kirurgiske mål blev opnået i 100% af operationerne uden efterfølgende for korrektion.

Diskussion/Konklusivt
Den vertikale abdominal plastik er en sikker operationsteknik, som kan anbefales til korrektion af hudoverskud hos MWL patienter. Operationsteknikken er forbundet med ganske få minor komplikationer, kort indlæggelses- og dræntid.

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Authors:
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Title: Persistent Pain following Abdominoplasty

Background: Persistent postsurgical pain is a well-recognized problem after a number of common surgical procedures, such as amputation, thoracotomy, and inguinal hernia repair. Less is known about persistent pain after cosmetic surgical procedures. We therefore decided to study the incidence and characteristics of persistent pain after abdominoplasty, which is one of the most frequent cosmetic surgical procedures.
Methods: In September 2014, a link to a web-based questionnaire was mailed to 217 patients who underwent abdominoplasty between January 2006 and September 2014 at the Department of Plastic Surgery at Aalborg University Hospital, Denmark. The questionnaire included questions about pain and sensory abnormalities located to the abdominal skin, physical and psychological function, and patient satisfaction was rated on a four-point scale. (1, satisfied, 2, very satisfied, 3, disappointed, 4, very disappointed.
Results: One hundred seventy-four (80.2%) patients answered the questionnaire. Sixteen patients (9.2%) reported pain within the past 7 days related to abdominoplasty. Abnormal abdominal skin sensation was common and reported by 142 patients (82%). Sensory abnormalities, in particular hypersensitivity, were

associated with the presence of chronic pain. Satisfaction with the procedure was reported by 152 (87.4%) patients. The majority of patients reported improvement on all physical and psychological factors. Patients with chronic pain were more often disappointed with the surgery and unwilling to recommend the surgery.
Conclusion: Overall, patients were satisfied with the procedure although abnormal abdominal skin sensation was common. However, there is a risk of developing chronic neuropathic pain after this procedure, and patients should be fully informed about this risk before undergoing surgery.

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Titel: Skal ultralydsscanning være en del af den plastikkirurgiske uddannelse?

Forfattere: Julie Allen[1], Martin Heje[1], Tine E Damsgaard[1], Lars Bolvig[2], Gete Toft[1]

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Formål/baggrund: Ultralyd har tidligere været forbeholdt specialister i det radiologiske speciale. Teknologiske forbedringer har medført mobile, point-of-care apparater, der kan bruges i klinikken, der hvor lægen møder patienten til udredning, diagnosticering og behandling. Ultralyd anvendes i alle kirurgiske specialer, også i plastikkirurgi, men det håndteres sjældent af de plastikkirurgiske læger selv. Indikationerne for plastikkirurgisk anvendelse er mange, og det virker derfor som en naturlig udvikling at inddrage denne modalitet i vores kliniske hverdag. På plastikkirurgisk afdeling, AUH, har hoveduddannelseslæger og speciallæger fra september 2014 til april 2015 gennemført et projekt indeholdende oplæring og certificering i ultralydsscanning af plastikkirurgiske patienter.
Materiale og metode: Projektet er afviklet i samarbejde med CECLUS, Center of Clinical Ultrasound ved AUH. Kurset afsluttes med en certificering af den enkelte læge efter at have gennemførelse af min 50 scanninger. Uddannelsen forløber over 8 måneder og indeholder dels 2 kursusdage i klinisk ultralyd, som afholdes på SkejSim, dels selvstudie ud fra en lærebog. Endvidere 2 undervisningsdage i klinikken, i alt 6 timer, hvor der scannes sammen med en radiolog. Desuden skal de 50 scanninger gennemføres, og alle scanninger registreres for indikation, konklusion og samt evt. viderehenvisning til ultralydsscanning af radiologisk speciallæge.
Resultater: 4 hoveduddannelseslæger og 6 speciallæger deltager i kurset. Projektet afsluttes med certificering d. 08.04.2015 og er således ikke afsluttet i skrivende

stund. Erfaringer og resultater vedrørende projektet vil blive præsenteret på årsmødet.

Diskussion/konklusion: Vi mener, at viden om og færdigheder i ultralydsscanning giver de uddannelsessøgende plastikkirurgiske læger et kompetenceløft. Det bedrer behandlingen af patienten ved hurtig afklaring af simple problemstillinger og giver mere præcis og korrekt behandling. Klare retningslinier for, hvilke scanningstyper den således uddannede plastikkirurgiske læge kan foretage skal afklares, og i samarbejde med CECLUS arbejdes der på nationale retningslinjer og etik for plastikkirurgisk ultralydsscanning. Vi anbefaler, at ultralydsscanning skal implementeres i uddannelsen af fremtidens plastikkirurger.

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Total calcaneal reconstruction using a massive bone allograft and a pedicled osteocutaneous fibula flap

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BACKGROUND
Reconstruction of the calcaneus is a challenging procedure due to the anatomy and mechanical properties of the heel bone. In case of malignant bone tumours of the calcaneus, amputation is often the preferred surgical treatment as it is difficult to achieve wide margins and the reconstructive options after calcanectomy are limited. Capanna originally described a technique for treatment of long limp segmental bony defects using a free fibular flap placed within the intramedullary canal of an allograft. Other authors have presented the use of a pedicled fibula flap for the treatment of calcaneal malignancies. We present how the principles of the Carpanna reconstruction can be adapted to reconstruct the calcaneus using a massive bone allograft and a pedicled fibula flap, thus avoiding amputation.

METHODS
Two girls (aged 5 and 16) presented with Ewings´sarcoma of the calcaneus. Both received pre- and post-operative chemotherapy. In both cases a limb preserving calcanectomy were performed. In one patient, a femoral head allograft was fitted to replace the removed calcaneus, and in the other, a calcaneus allograft was used. The allograft was fixed to the talus and cuboid bone. In both, a distal based, pedicled fibula flap were used for reconstruction of

the soft tissue defect and the vascularised fibula bone was fitted into the allograft as a vascularized inlay and fixed using staples.

RESULTS
The patients were allowed weight bearing in an ankle brace when CT confirmed bone healing and incorporation of the fibula into the allograft, at 3½ months and 6 months respectively. Full weight bearing without brace was allowed after 8 months in both cases. There were no allograft fractures and no infections.

CONCLUSIONS
A pedicled fibula flap combined with a massive allograft is an excellent option for reconstruction of the calcaneus after total extirpation of the bone due to malignancy.

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En ”rekonstruktiv stige” ved primære rekonstruktioner?
Lene Birk-Sørensen. Plastikkirurgisk afdeling, Aalborg Universitetshospital.

Baggrund:
Der er flere fordele ved at foretage brystrekonstruktion i samme operation som kvindens bryst(er) fjernes (primær rekonstruktion). Dels sparer det oftest kvinden for en operation, og dels kan det give et bedre kosmetisk resultat. Man tilstræber at bevare mere hud og eventuelt også brystvortekomplekset (NAC) ved en primær rekonstruktion end ved en simpel mastektomi, og dermed indebærer det en større risiko for hudnekroser og et eventuelt rekonstruktionstab. Det er derfor vigtigt, at man medtager kvindens risikoprofil i overvejelserne, når man anbefaler rekonstruktionsmetoden.

Det er velkendt at tidligere strålebehandling, tobaksrygning, sukkersyge og forhøjet blodtryk øger risikoen for komplikationer i forbindelse med primær brystrekonstruktion. Brystets form og fedtindhold bør også medtages i overvejelserne.

Formål:
At præsentere de overvejelser vi gør i forbindelse med valg af rekonstruktionsmetode og vise enkelte eksempler.

Den ”rekonstruktive stige” ser hos os, i øjeblikket, således ud:
1: Høj risikoprofil: Autologt væv (LD-lap med implantat). Overvej sekundær rekonstruktion.
2: Middel risikoprofil: Ekspander under m. pectoralis major og m. serratus/fascien. Såfremt kvinden ønsker autologt væv kan man overveje senere at skifte ekspanderen til en DIEP-lap. (Delayed primary reconstruction).
3. Lav risikoprofil:

Små mammae: Bevare NAC om muligt, inframammær inscision, blivende implantat/ekspander under m. pectoralis major og acellulær dermal matrix. **Ptotiske mammae**: Wise-pattern inscision med de-epithelialiseret inferior baseret dermal lap syet til m. pectoralis major. Blivende implantat/ekspander.
Ikke-ptotiske mammae hvor NAC skal fjernes: Tenformet ekscision af NAC, blivende implantat/ekspander under m. pectoralis major og acellulær dermal matrix.

Der vil ikke blive præsenteret statistik over komplikationsfrekvenserne ved de forskellige procedurer. "Stigen/algoritmen" er ment som et redskab til overvejelser, ikke som "en kasse alle kan puttes i".

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Brystrekonstruktion med m. latissimus dorsi – 10 års erfaringer fra Rigshospitalet
Forfattere: Jens B. Højvig, Christian T. Bonde
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Formål: Brystrekonstruktion med eget væv er en hyppigt anvendt teknik til kvinder, der er blevet mastektomeret og strålebehandlet. Førstevalget hos os rekonstruktion med fri lap fra abdomen. Ved patienter, hvor dette ikke er muligt eller ønsket, er rekonstruktion med m. latissimus dorsi(LD-lap) det primære alternativ. Vi ønskede at få klarhed over patientforløbene samt resultater med henblik på optimering af fremtidig behandling.
Materialer og metoder: 135 rekonstruktionsforløb for 128 kvinder, foretaget i tidsrummet 2004-2013 blev gennemgået. Data omkring rekonstruktionsprocedurerne, indlæggelser og efterforløb blev gennemgået ved gennemgang af journaler.
Resultater: Gennemsnitsalderen for kvinderne var 48.5 år, og der var hovedsageligt tale om sekundære rekonstruktioner(90%). Gennemsnitlig tid til fjernelse af sidste dræn var 6.3 dage og tid til udskrivelse var 6.9 dage. 13 patienter blev reopereret inden for de første 30 dage, én lap gik tap og der blev registreret én systemisk komplikation i form af UVI. 38 patienter (28%) modtog antibiotisk behandling i efterforløbet, og 27 patienter(20%) udviklede serom. Der var en statistisk signifikant øget risiko for at blive indlagt til antibiotisk behandling, såfremt man udviklede serom($p = 0.0287$). **Diskussion/Konklusion:**
Opgørelsen danner grundlag for fremtidig forløbsoptimering hos patienter der skal have rekonstrueret brystet ved hjælp af en LD-lap. Vi fandt at den primære faktor i forhold til indlæggelseslængde var tiden til fjernelse af dræn. Derudover fandt vi en statistisk signifikant sammenhæng mellem dannelse af serom og risiko for udvikling af infektion. Ved optimering af kirurgisk teknik samt drænhåndtering håber vi, at kunne forbedre patientforløbene i forhold til indlæggelsestid og komplikationsrate.

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Risikoreducerende mastektomi og primær brystrekonstruktion med ADM og implantat
Optimering af outcome og costeffective analyse

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[2] Aleris-Hamlet

Formål/Baggrund: Bilateral risikoreducerende mastektomi (BPM) er et af de eneste præventive tiltag, der kan tilbydes raske kvinder med høj familiær risiko for brystkræft. Kvinder med BRCA-gen mutation har op til 80% risiko for udvikling af brystkræft. BPM reducerer risikoen for udvikling af brystkræft med mere end 90%. Gruppen af patienter, der vælger BPM adskiller sig fra patienter, der behandles for cancer. De er yngre og har andre forventninger til det rekonstruktive resultat. I DK såvel som internationalt ses stigende efterspørgsel på såvel bilateral som contralateral profylaktisk mastectomi, og i takt med genetisk testning er blevet mere tilgængelig, forventes antallet af danske kvinder, der overvejer bilateral eller kontralateral profylaktisk mastectomi også at stige fremadrettet. Direct-to-implant brystrekonstruktion (DTI) med acellulær dermal matrix (ADM) og implantater muliggør færdig rekonstruktion af brystet i samme operation som mastektomien. I 2010 iværksatte vi et pilotprojekt på Rigshospitalet mhp. evaluere fordele og ulemper for hhv. patienterne og klinikken ved anvendelse af ADM. Teknikken er efterfølgende implementeret som del af rekonstruktionsteknikkerne på afdelingen. Formålet er at præsentere vores nuværende kliniske resultater, erfaringer og fordele og ulemper ved DTI-rekonstruktion.

Materiale/Metode: prospektiv registrering af demografiske data, operationsparametre, længde og volumen af drænage, type og hyppighed af komplikationer, varighed af rekonstruktionsforløb. Ud fra ovenstående er foretaget cost-effectiveness analyse af bilateral DTI-rekonstruktion med Strattice versus tostadie rekonstruktion med expander/implantat. Resultater: Gennemsnitsalder ved RRM og DTI var 38 år (24-64). Gennemsnitlige drænage 8 dage(3-15). 80% af patienterne (svt. 87% af brystoperationerne) var færdigbehandlet i én operation og uden komplikationer. Hyppigste behandlingskrævende komplikationer var serom (8% af patienterne) efterfulgt af infektion 2%, nekrose 2% og hæmatom 1%. Costeffectiveness analyse præsenteres på mødet. Diskussion: Væsentlige fordele for patienten er kosmetiske resultat og afkortet rekonstruktionsforløb. Risici omfatter længerevarende drænage og manglende integration af eget væv. Vi finder jf. internationale studier hyppigere seromdannelse men umiddelbart færre kapselskrumpninger og andre implantatrelaterede komplikationer end ved to-stadie rekonstruktion. Der er en learning curve. Teknikken er omkostningstung for klinikken, men for patienten og samfundsøkonomisk besparende. Konklusion: teknikken er velegnet til selekterede patienter, og både præ-, per- og postoperative faktorer er essentielle for succesfuld behandlingsresultat.

*

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Implantat-associeret ALCL: de første to danske cases

Formål/baggrund: Implantat-associeret ALCL (Anaplastic Large Cell Lymphoma) er en relativt ny sygdomsenhed som blev rapporteret første gang i 1997, og indtil videre er der identificeret 173 tilfælde på verdensplan. Den mest almindelige kliniske præsentation er sen seromdannelse omkring brystimplantatet, men kan også ses som en tumormasse i forbindelse med kapslen eller som lymfeknudehævelse på baggrund af lokal spredning. Sygdommen forløber normalt relativt godartet men der er set flere dødsfald i forbindelse med dissemineret sygdom.
Materiale og metode/resultater: Vi præsenterer de to første cases som er fundet i Danmark. Der er tale om to brystaugmenterede kvinder som begge debuterede med sen seromdannelse, den ene ligeledes med tumordannelse og spredning til regionale lymfeknuder. Begge kvinder er nu sygdomsfrie efter operation og kemoterapi men kontrolleres i hæmatologisk regi. Efter dette følger en kort gennemgang af litteraturen på emnet og anbefalinger til patientvejledning, ressourcepersoner og behandling.

Diskussion/Konklusion: ALCL er fundet hos kvinder med både silikone og saltvandsimplantater, hos augmenterede og brystrekonstruerede og med en symptomdebut fra kun måneder til 25 år efter implantation. Alle kvinder med kendt implantathistorie havde haft mindst ét tekstureret implantat. Risikoestimater varierer fra 1/500.000 til 1/3.000.000 kvinder med implantater.

Ætiologien af ALCL menes at være multifaktoriel og skyldes formentlig en kombination af kronisk inflammation som initieres af teksturingen på implantatoverfladen og en mulig genetisk prædisposition. Vi har hos vores patient identificeret bakterier i kapselsubstansen i overensstemmelse med en tidligere

fremsat teori omhandlende kronisk infektion med biofilmproducerende bakterier og genesen af denne sjældne sygdom.
Behandlingen er i første omgang fjernelse af implantat og kapsel og i tilfælde af spredning behandling med kemoterapi (CHOP) og eventuelt stråleterapi og knoglemarvstransplantation.

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Sedimentationspræpareret fedttransplantation til brystet

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Formål/Baggrund
Fedttransplantation til rekonstruktiv og æstetisk korrektion af brystet breder sig hastigt verden over. Teknikken, som nu fejrer 122 år, er i princippet enkel, men foretages på mange forskellige måder med hensyn til høst, præparation, opkoncentrering af fedtceller og injektionsteknikker.
Formålet med dette studie er at beskrive vores erfaring med fedttransplantation til brystet med anvendelse af simpel sedimentation til præparation af fedttransplantatet.

Materiale og metode
Vi har foretaget et retrospektivt studie af fedttransplantationer foretaget på Sygehus Lillebælt, Vejle og Sykehuset Telemark, Norge i perioden marts 2010 - juli 2014. Fedtet blev høstet med en 3 mm fedtsugningskanyle, opsamlet i kanister eller i de enkelte aspirationssprøjter og præpareret ved simpel sedimentation. Fedtet blev hovedsagligt injiceret subkutant eller subglandulært ved hjælp af 18 gauge Coleman kanyler eller Khouri 2 mm kurvede kanyler. Komplikationer og resultater blev registreret ved den ambulante efterkontrol.

Resultater
Der blev udført 348 fedttransplantationer på 176 kvinder. Median alder var 53 år (22-71). 20% (35/176) var rygere, 9% (16/176) hypertensive og to procent diabetikere. Operationsindikationer var: brystkræft 64% (112/176), benigne tilstande 18% (32/176), DCIS 13% (23/176) og risikoreducerende indgreb 5% (9/176). Indikationen for fedttransplantation var korrektion efter: sekundær rekonstruktion 35% (123/348), primær rekonstruktion 30% (104/348), brystbevarende operation/arvæv 21% (73/348) og benigne tilstande 14% (48/348). En enkelt

fedttransplantation blev udført hos 43% (75/176) og multiple 57% (101/176). Fedtsugningen blev foretaget med sprøjte hos 64% (221/348) og med fedtsugningsapparat hos 36% (127/348). De hyppigst anvendte donorsteder var: abdomen 83% (289/348) og flanke 26% (90/348). Den mediane mængde fedt høstet og injiceret var henholdsvis 270 ml (50-750) og 120 ml (20-375). Komplikationer blev registreret hos 7% (25/348) i form af: fedtnekroser 3%, oliecyster 2% og infektion 2%. Ingen major-komplikationer blev registreret.

Diskussion/Konklusion
Fedttransplantation kan foretages hurtigt og sikkert med lav komplikationsrate ved anvendelse af sedimentationsbaseret præparation med gode resultater til følge.

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Titel:
Autolog fedttransplantation som brystrekonstruktion hos kvinder tidligere behandlet for cancer mamma - er det sikkert?

Formål/baggrund:
Autolog fedt transplantation bruges i stigende grad til brystrekonstruktion, og har også gjort sit indtog i behandlingen af patienter tidligere opereret for cancer mamma og DCIS. Man kender på nuværende tidspunkt ikke interaktionen mellem "tumor bed" og tilførte fedtderiverede stamceller, og risikoen for recidiv af patientens cancer kræver en agtpågivende tilgang. I kontrast hertil foreligger der idag ingen nationale retningslinier for brug af fedttransplantation hos denne patientgruppe.

Formålet med dette studie er at gennemgå den foreliggende litteratur omkring recidiv af cancer efter fedttransplantation hos kvinder tidligere behandlet for cancer mamma, samt litteratur omhandlende risikoen for cancer eller recidiv i væv behandlet med fedttransplantation.

Materiale og metode:
Litteraturstudie.

Resultater:

Fedttransplantation til rask mammavæv har ikke vist øget risiko for primær cancer. Hos kvinder tidligere behandlet for cancer mamma med mastektomi og lumpecomi viser de foreløbige resultater en incidensrate der er sammenlignelig med de kvinder som ikke har modtaget fedttransplantation, men follow-up tiden er begrænset. Særligt mangler der solide data hos den store gruppe kvinder, som behandles med lumpectomi, en gruppe der som udgangspunkt har en større risiko for recidiv, end de der er mastektomeret.

Diskussion/konklusion:
Foreliggende studier indikerer at autolog fedttransplantation ikke øger risikoen for cancer mamma i forhold til udgangspunktet, men data er baseret på kort follow-up og der er behov for større studier med længere follow-up for at afdække risikoen.

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The versatility of autologous fat transplantation in correction of facial deformities: a single-center experience.

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Aim/background

Deformities in the craniofacial region are of great social and functional importance. Several surgical techniques have been used however often with high morbidity and lacking the ability to address smaller contour defects. The minimally invasive technique of fat transplantation has evolved rapidly within the last few decades. We present our experiences in using fat transplantation in patients with craniofacial defects.

Material and Methods

In the present retrospective, single-centre study, we evaluate our experience with patients who underwent surgery for treatment of craniofacial deformities at Aarhus University Hospital between August 2012 and July 2014 at the Department of Plastic Surgery at Aarhus University Hospital. All patients who received fat transplantation to the head and neck area were included. Preoperative and postoperative standardized photographs were used to evaluate outcome at postoperative follow-up.

Results

The study population consisted of 13 patients; 7 males, 6 females. The mean age was 32 years (range 9-62). No complications were observed in the 22 procedures performed. The mean number of series of fat transplantations performed, was 1.69 (range 1 – 3). The mean volume of injected fat was 19.41 ml. (range 5 - 49.5).

Discussion/Conclusion

The present report highlights the multiple utilities of fat transplantation in patients with various deformities of the craniofacial region. In our experience, autologous fat transplantation to the face, head and neck with rigottomy when deemed necessary, is a safe

procedure. Improvement of contours and softening of then skin was achieved. Fat transplantation has a wide range of application in relation to contour deficits, scar adherence and disfiguration caused by trauma, inflammatory disorders, infections, congenital conditions and after tumor surgery. The technique requires multiple procedures but possesses a low donor site mobidity with a short recovery and hospitalization.
Onkologiske, radiologiske og kirurgiske aspekter ved behandling med fedttransplantation præsenteres og diskuteres.

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Forfatter: Ovl. Christina Strunk Gramkow, Ovl. Trine Foged Henriksen og Afd. læge Rikke Bredgaard.
Institution: Klinik for Plastikkirurgi, Brystkirurgi og Brandsårsbehandling, Rigshospitalet.
Titel: Nationale guidelines til lipofiling og brystkirurgi.
Formål/Baggrund: Der findes endnu ikke nationale retningslinjer for anvendelse af lipofilling ved brystkirurgi, til trods for at indgrebet finder anvendelse i stigende grad.
Materiale og metode: Forslag til kriterier for behandling med lipofilling ved brystkirurgi, vedrørende indikationer, kontraindikationer, forløb og opfølgning samt billeddiagnostik præ- og postoperativt.
Resultat/Diskussion og Konklusion: Det vil være hensigtsmæssigt at sikre ensartede retningslinjer på nationalt plan vedrørende lipofilling og brystkirurgi. Dette vil bidrage til en ensretning af behandlingstilbud og en større sikkerhed i opfølgning af patientforløb og dermed vurdering af risici og komplikationer ved behandlingen.

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Title:
Complications caused by injection of dermal fillers in Danish patients.

Authors:
Charlotte Caspara Uth[1], Claus Zachariae[2] and Jens Jørgen Elberg[1].

Institution:
[1]Department of Plastic Surgery, Breast Surgery and Burns, Rigshospitalet.
[2]Department of Dermato-allergology, Gentofte Hospital

Background:
The usage of dermal filler has increased significantly in recent years. The procedure helps to diminish the facial lines and restore volume and fullness in the face at a low cost. With the increasing number of treatments, the number of complications is likely to increase as well.

The aim of this study was to identify complications caused by injection of dermal filler among Danish patients referred to department of dermatology and plastic surgery and to recommend appropriate therapies.

Methodes:
A total of 34 patients with complications were collected retroperspectively during a twelve years period using original data files. Information on the type, date, number and location of the injections, type and date of complications, treatment, bacteria and pathology were registered.

Results:
The most injected material in this series was Aquamid (38.2%), Restylane (14.7%), Dermalive (8.8%) and Sculptra (8.8%). 52.9% of the patients had filler injected in the lips, 44.1% periorally, 29.4% in the cheek area, 17.6% periorbitally, 5.9% in the glabella area and 2.9% in the nose. The median period between filler injection and complications was two years (range, one day to eight years). 82.4% experienced edema, 70.6% had noduli, 55.9% experienced infection, 52.9% had discoloration, 50.0% had granuloma, 20.6% had scarring and 2.9% had fistulation. The median time from complication to treatment was 21 days (range, 0 days to approximately 8 years). 32.4% were treated with antibiotics alone. The filler was excised surgically in four patients. Five patients were allergy tested and one had a positive reaction to the ingredient in the filler.

Conclusion:
With the increased use of dermal filler and the derived complications there exists a need to determine the optimal treatment for those patients. This study suggests general recommendations for the referral and treatment of patients with complications associated with dermal filler injection.

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Forfatter: Reem Dina Jarjis, reservelæge

Institution: Plastikkirurgisk og Brystkirurgisk Afdeling, Roskilde Sygehus

Titel: Plastic Surgery Camp – Kumi, Uganda

Baggrund: I mange udviklingslande er relevant lægehjælp ikke tilgængelig eller økonomisk uoverkommelig. Derfor modtager mange patienter ikke den nødvendige rekonstruktive behandling, hvilket på længere sigt fører til stigmatisering og yderligere forringelse af livskvalitet.

Metode: Rejsebeskrivelse fra en reservelæges velgørenhedsarbejde i Kumi (Uganda)

af to ugers varighed i oktober 2014, hvor der blev udført plastikkirurgiske operationer af et lægehold fra England, Belgien og Danmark.

Resultater: I alt 75 veludførte indgreb, tilfredse patienter samt et stærkt inspireret, fagligt og kulturelt styrket lægehold.

Konklusion: Lægeligt velgørenhedsarbejde er anbefalelsesværdigt, da det er til stor gavn for patienterne hvor behandlingen er hårdt tiltrængt. Derudover byder det på en række personlige og professionelle udfordringer og bidrager samtidig til et stort fagligt og personligt udbytte.

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Rikke Holmgaard, Christian Lyngsaa Lang, Jakob Astrup og Søren Partoft.

Rigshospitalet

Titel:

Behandling af brandskader fra skadessted til specialafdeling .

Formål: Er at behandlingen af brandskader lægger sig tættere op af internationale standarder. Vejledningerne for den primære behandling er forsøgt simplificeret for at opnå korrekt håndtering af patienterne hele vejen fra skadessted til brandsårsafdeling. Dette i håb om at forebygge misforståelser i behandlingen og sikre korrekt håndtering af brandskader.

Baggrund:

Erfaringer med modtagelse af patienter har vist, at en misforstået primær behandling ofte fører til et mere kompliceret patientforløb. Det, som oftest medfører fejl i den primære behandling, er: upræcis vurdering af skadens størrelse og dybde (grad), voldsom afkøling af patienterne (hypotermi) samt svær overhydrering i et forsøg på at væske-resuscitere store forbrændinger. En forkert primær behandling får konsekvenser for patientens behandlingsforløb med høje personlige og samfundsøkonomiske omkostninger til følge.

Metode:

En gennemgang af nationale og internationale guidelines til behandling af brandskader har medført en revidering og ændring af de på Rigshospitalet gældende vejledninger.

Diskussion og konklusion:

De reviderede guidelines er tilpasset internationale standarder og forsøgt simplificeret og præciseret mhp. korrekt håndtering af patienterne fra skadesstedet til ankomst på brandsårsafdelingen. Der er lagt vægt på at mindske risikoen for hypotermi og dermed sænke mortaliteten for denne patientgruppe. Derfor bør skylning af brandskaderne hos intuberede patienter kun foregå i 30 min, hvor øvrige brandskader kan have gavn af op til 3 timers skylning – såfremt hypotermi samtidig kan undgås.

Vejledende bør alle brandskader, som ikke kan pakkes forsvarligt ind, indlægges uden at skele til brandskadens størrelse. Ved brandskader, der andrager sig grænserne for væsketerapi, skal patienterne transporteres til Rigshospitalet. Opstart af væskebehandling kan ske efter simplificerede regler, såfremt transporttiden til specialafdeling er mindre end 2 timer. Endeligt er det vigtigt at være opmærksom på time diuresen(TD), såfremt man opstarter væskebehandling efter Parklands formel, da væskeberegningen kun er vejledende og bør gives balanceret i forhold til TD for at undgå under- og overhydrering. Til brug i behandling af brandskader er der udarbejdet et flow chart, som skal give et overblik over behandlingen både for personalet på skadestuerne og i almen praksis.

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2) Plastikkirurgisk afdeling, Herlev Hospital.
3) Klinisk Immunologisk Afdeling, Rigshospitalet.

Titel:

Fuldblodskoagulationsændringer hos brandsårspatienter evalueret med trombelastografi

– et prospektivt, eksplorativt studie.

Formål/Baggrund:
At beskrive fuldblodskoagulationsændringerne hos patienter med svære forbrændinger (TBSA total body surface area >10 %) over en 14 dages periode ved hjælp af trombelastografi (TEG) analyse.

Materiale og metode:

13 patienter med forbrændinger >10 % blev inkluderet i studiet. TEG analyse samt standard koagulations parametre som APTT, INR, trombocyttal, fibrinogen, hæmoglobin med videre blev udført ved indlæggelse samt over de følgende 14 dage.

Resultater:

Man fandt ændringer i fuldskoagulationen i hyperkoagulabel retning som funktion af tid (dage). Flg. TEG parametre ændredes: K faldt fra 2,9 min. ved indlæggelse til 1,9 min. på tredje dagen ($p<0,05$). Angle (α) steg fra 54,02% til 68,57% dag 7 ($p<0,05$). Maksimal amplitude (MA) steg fra 62,9 mm til 73,8 mm på femte dagen ($p<0,05$) Den maksimale trombin generering (MTG) steg fra 15.9 mm*100/sek til 30.5 mm*100/sek på ottende dagen ($p<0,05$).

Herudover faldt Hgb fra 9,65 mmol/L til 8, 76 mmol/L dag fire ($p<0,05$); APTT øgedes fra 25,8 sek. til 30,6 sek. dag seks ($p<0,05$), Fibrinogen steg fra 11,6mmol/L til 20,4 mmol/L dag seks ($p>0,05$) og INR faldt fra 1,17 til 1,0 dag fem ($p<0,05$).

Diskussion/Konklusion:

Der er kun ganske få studier der beskriver koagulationændringer hos brandsårspatienter. Dette er det første studie, der beskriver koagulationsændringer i fuldblod målt ved TEG over en 14 dages periode. Resultaterne viser, at brandsårspatienter med TBSA>10% har en traumatisk koagulopati der ikke afsløres ved måling af de plasmabaserede anlyser som APTT og INR. TEG analysen viser en signifikant øget hastighed for koageldannelse (α), en øget trombin generering (MTG) samt en øget styrke af koaglet (MA) efter henholdsvis dag 7, 8 og 5. Dette kan set fra et koagulationsmæssig synspunkt tale for at udskyde tidlig nekretomi for at nedsætte den perioperative blødning såfremt patientens øvrige tilstand tillader det.

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Authors: Iselin Saltvig, Vibeke Koudahl
Institution: The Department of Plastic Surgery, Aalborg University Hospital, Denmark
Title: Tranexamic acid in plastic surgery in an adult elective surgical population – a litterature review

Background:
The use of tranexamic acid (TXA) to optimize haemostasis is increasingly acknowledged. Plastic surgery encompasses a wide range of surgical techniques, often dealing with large resections and undermining, making the balance of haemostasis and preservation of blood supply of vital importance. In elective surgeries TXA potentially represents a valuable tool.

The aim of this study was to identify published papers on the use of TXA in plastic surgery and review those to see if any consensus is established.

Material and Methods:
Cochrane,EMBASE,PubMed, SveMed+ were searched in March 2015 for papers regarding the use of TXA in plastic surgery (including reconstructive- , aesthetic-, and burn procedures). The identified papers were screened. Only original papers concerning the use of TXA in plastic surgery were included. Procedures in*cluding paediatric-, maxillofacial-, orthopaedic procedures, multi trauma or coagulopathies, were excluded.*

Results:
The initial literature search identified 267 papers. After screening and exclusion, we identified 21 papers that met the inclusion criteria. Generally the level of evidence was low and we identified no randomized controlled trials, nor any guidelines for the use of TXA in plastic surgery.

Conclusion:
The use of TXA has been well documented in several fields of surgery. Guidelines are emerging, and the drug is starting to be recognized as a common drug in many surgical procedures. Studies shows it has been proven cost- effective, reducing morbidity and promoting patient survival in adjacent surgical diciplines. There is little, or no consensus considering optimal administration, and a general lack of a standard treatment protocol in plastic surgery. The lack of guidelines leaves us looking to adjacent surgical diciplines where the use of TXA is better documented, and calls for further studies of TXA in plastic surgery.

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Prevention of venous thromboembolism in Plastic Surgery in Denmark

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Introduction: Venous thromboembolism (VTE) is a serious complication for patients undergoing surgery. The literature currently lacks high-level evidence for appropriate

means of VTE prophylaxis specific for patients in plastic surgery, though several larger studies have been published recently. The incidence of VTE in plastic surgery is uncertain and varies greatly from procedure to procedure, but is reported to be as low as 0% and as high as 9%. (Campbell 2014). Currently, there is no national danish guideline on VTE-prophylaxis and it seems that there is a significant difference in clinical practice between different clinics.
Aim: To define current VTE prophylaxis practices among plastic surgeons in Denmark
Method: An online survey was sent to 42 clinics in Denmark, 8 public clinics and 34 private clinics.
Results: 20 clinics responded, 1 survey was however returned blank, giving a total response rate of 45%. 68% of the respondents were from a private clinic and 32% were from the public sector. 89% have a guideline for VTE-prophylaxis. The majority of the respondents use some kind of VTE-prophylaxis, but the method, duration and indication for prophylaxis varies greatly. The most used prophylaxis is peri-operative positioning, early mobilization and compression-stockings (68%). The second most used prophylaxis is postoperatively initiated s.c. LMWH (37%). The public clinics are more consistently using chemo-prophylaxis than the private sector.
26% report of cases with VTE within the past 5 years (33% of public and 23% of private clinics), but none have been fatal.
Conclusion: The use of VTE-prophylaxis in plastic surgery in Denmark varies greatly from clinic to clinic. The majority of clinics in Denmark have a guideline for VTEprophylaxis, but the indications for prophylaxis, the method and duration varies greatly. A national guideline, based on plastic surgery cohorts, with a relevant riskstratification, is recommended.

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Chondrodermatitis Nodularis Helicis- a literature review.

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1: Department of Plastic Surgery, Roskilde Hospital, Denmark. 2: Department of Pathology, Roskilde Hospital, Denmark.

Abstract:
Introduction: Chondrodermatitis Nodularis Helicis is a benign inflammatory process affecting the skin and cartilage of the ear. It typically presents as a painful nodule surrounded by an area of erythema and often prevents the patient from sleeping on the affected side. Historically a striking male predominance of 10:1 has been reported and the age of presentation above 40. Many treatment modalities have been described in the literature, but the condition is prone to recurrence. **Aim:** To identify a recommended treatment with as low a recurrence rate as possible.

Method: A literature search was performed, identifying 129 articles, of which articles from 1996 and onwards were reviewed and selected according to relevance. Relevant articles before 1996, contributing specifically to the evaluation of treatment modalities, were also included.
Results: 53 articles were included, describing and investigating non-surgical as well as surgical treatment modalities. A male to female ratio of 1:0.7 was found. Large prospective, controlled and randomised long-term studies are lacking, but all described treatment-modalities are evaluated.
Conclusion: Based on the available literature, it is recommended to commence with a conservative approach with decompression devices and only if not effective, to proceed with a simple surgical procedure.

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Patient Expectations of Body Contouring Surgery: A Qualitative Study

Authors Lotte Poulsen[1], Anne Klassen[2], Sabrina Jhanwar[3], Andrea Pusic[3], Kirsten K. Roessler[4], Michael Rose[5], Jens Ahm Sørensen[1].

Institutions [1]Department of Plastic Surgery, Odense University Hospital, Odense, Denmark; [2]Department of Pediatrics, McMaster University, Hamilton, Canada; [3]Department of Plastic Surgery, Memorial Sloan-Kettering Cancer Center, New York, US; [4]Institute of Psychology, University of Southern Denmark, Odense, Denmark; [5]Department of Plastic Surgery, Hospital of Southwest Jutland, Esbjerg, Denmark.

Background Patients' expectations are important in bariatric and body contouring surgery since the goals include improvements in health-related quality of life (HRQOL), appearance and body image. The aim of this study was to identify patient expectations at different points along the weight loss journey and/or body contouring surgery.

Methods This qualitative study took an interpretive description approach. Between September 2009 and February 2012, 13 cosmetic and 36 bariatric surgery patients were interviewed post-body contouring surgery. Data were analyzed using a line-byline approach whereby expectations were identified and labeled as expected, unexpected or neutral. Constant comparison was used to ensure coding was done consistently.

Results Participants described expectations according to appearance, HR-QOL, and patient experience of care. Two areas stood out in terms of unmet expectations and included appearance and physical health, i.e., recovery from body contouring surgery. Most participants, who underwent bariatric surgery, did not expect the extent of excess skin after weight loss, nor how the excess skin would make them look and feel. Participants were also not expecting to look as good as they did following body contouring. For recovery, participants did not expect that it would be as long and/or as hard as it was in reality.

Discussion A fuller understanding of outcomes and expectations for this patient population is needed to enhance patient education and improve shared medical decision-making. Education materials should be informed by the collection of

evidence-based patient-reported outcome (PRO) information, using measures as the BODY-Q. A PRO scale measuring patient expectations is needed. Our team developed an expectation scale for cosmetic plastic surgery patients, which is being tested in body contouring surgery patients. This scale asks patients how they think their appearance and life will change after surgery. Future research is needed to develop a similar expectations scale for obese and bariatric patients.

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Validation of The Body-Q in Denmark - a new Patient-Reported Outcome Measure

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Background Our research aim to enhance the understanding of patient-reported outcomes (PROs) associated with bariatric and body contouring surgery. In order to capture PROs appropriately, well-defined, reliable, valid and responsive instruments are needed. Following internationally accepted guidelines for the development of PRO instruments an international team has developed a comprehensive set of PRO scales, called the "BODY-Q". The present study aims to translate and linguistic validate the BODY-Q for use in Danish bariatric and body contouring patients.

Methods The Danish translation and linguistic validation of the BODY-Q has been performed in accordance with the international recommended ISPOR guidelines. All translators aimed to do a conceptually as opposed to literal translation, to use a simple and clear formulation and overall to undertake a translation understandable for all patients. Forward and backward translations were followed by an expert panel meeting and cognitive patient interviews.

Results A conceptually equivalent Danish version of the BODY-Q has been achieved and next step in our research program is to perform Danish psychometric validation. The scales are currently being implemented for use in bariatric and body contouring surgery patients in the Region of Southern Denmark and we will advocate for implementation in the Danish national database for bariatric surgery.

Discussion The collection of PRO data regarding patient satisfaction and HR-QOL is essential. In clinical practice the BODY-Q can help to identify problems, facilitate communication, and direct appropriate treatment of underappreciated symptoms for the individual patient. Collection of PRO information can help inform the patients' decision-making process and may also play an important role in creating realistic expectations toward outcomes. Furthermore, BODY-Q data can be used to

facilitate comparative effectiveness research, inform discussions with regulatory bodies and support an evidence-based approach.

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Use of next-generation sequencing in oral cavity cancer: intra tumour heterogeneity and metastasis

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Background: Oral cavity cancer is a subgroup of head and neck cancer which is the world's 6th most common cancer form. Oral squamous cell carcinomas (OSCC) constitute almost all oral cavity cancers, and OSCC are primarily attributed by excessive alcohol consumption and tobacco exposure. There is a lack of good tools to provide more accurate prognosis; biomarkers could be such a tool.

Methods: Five patients with stage IV OSCC with cervical lymph node involvement were included and 6 samples were collected: One blood sample, 1 sample from clinically healthy tissue, 3 tumour biopsies and 1 lymph node biopsy. Whole exome sequencing was carried out on the Illumina HiSeq1500 platform with paired-end 2x100 base-pair reads. Additional data analysis was performed for copy number variation.

Results: Mean sequence coverage was 93.6x with 84 % of bases covered by at least 20 read. An average of 479.1 somatic mutations were identified; 44.7 mutations per sample were identified as coding variants or splice site mutations. In our population, 13 genes have been identified with a mutation occurring in 2 or more patients. Mutations in *TP53* were identified in 4 patients, *MUC16* was seen mutated in 3 patients and the remaining gene mutations were identified in 2 patients. Two identical somatic mutations were observed in two different patients.
The analysis of intra tumour heterogeneity and lymph node involvement shows that specimens in each patient are very homogenous, but evidence of heterogeneous subpopulations of tumour cells exists.

Conclusions: Use of next generation sequencing in oral cavity cancer can give valuable insight into the biology of the disease. By investigating intra tumour heterogeneity we see that the different tumour specimens in each patient are quite homogenous, but evidence of heterogeneous subpopulations exists with unique alterations that could give them a selective advantage in tumour growth and perhaps in drug resistance. Overall, analysis of lymph node involvement has shown

that the samples are quite homogenous with the primary tumour, but also that different subpopulations with selective advantages could exist.

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Loss of e-cadherin; part of a migratory phenotype associated with ulcerated melanoma

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Little is known about the biological background of the prognostic impact of ulceration in melanoma. We have previously demonstrated an enhanced tumour-cell proliferation in ulcerated melanoma and an independent prognostic link between neutrophil influx and melanoma specific survival, supporting the hypothesis that wound-induced inflammation may be detrimental to patient survival. Reactivation of important developmental and migratory cell properties of the melanocyte (MMP9, loss of e-cadherin and spindle cell morphology) may be an essential link between inflammation and survival, equivalent to what is described as epithelial to mesenchymal transition (EMT) in epithelial-derived tumours.

Results from this current study showed no immunohistochemical-stained difference between MMP9 expression in ulcerated and non-ulcerated melanomas. However, ulcerated melanomas were significantly correlated with spindle shaped morphology ($p=0.049$) and loss of e-cadherin expression ($p=0.0004$). In addition, ulcerated melanomas were significantly associated with dilated vessels and neutrophilassociated angiotropism (clustering of tumour-cells around the external vessel walls) ($p<0.0001$), which may contribute to direct tumour-cell intravasation

and/or extravascular migratory metastasis. These results further link neutrophils and ulcerated melanoma to a migratory microenvironment and suggest that ulceration-induced inflammation directly favours dissemination of the tumour cells by modifying the local microenvironment, instead of ulcerated melanoma being a subtype with intrinsic cell properties that favours dissemination.

These studies contributes to the biological understanding of ulcerated melanoma, and more importantly highlights the importance of determining key trophic signals originating from wounds and wound recruited immune cells which impacts on tumour growth and dissemination, before considering how to modulate these behaviours in medical or surgical ways that might benefit the patients.