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Surgical-site infection is associated with increased risk of breast cancer-related lymphedema: A nationwide cohort study

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Background:
Surgical-site infection (SSI) is one of the most common short-term complications following breast cancer treatment and can inhibit lymphatic drainage. It is currently not known whether SSI increases the risk of long-term breast cancer-related lymphedema (BCRL).
Objective:
To examine the association between surgical-site infection and the risk of BCRL
Methods:
This nationwide study identified all patients treated for unilateral, primary invasive, non-metastatic breast cancer in Denmark between January 1st 2007, and December 31th 2016 (n= 37,937). A prescription of antibiotics after breast cancer treatment was used as a disease proxy for SSI. The risk of BCRL was analyzed up to 3 years after breast cancer treatment using multivariate Cox regression and adjusted for cancer treatment, demographics, comorbidities, and socioeconomic variables.
Results:
There were 10,368 (27.33%) patients with a SSI and 27,569 (72.67%) without a SSI (incidence rate per 100 patients, 33.10 (95%CI, 32.47-33.75). The BCRL incidence rate per 100 person-years for patients with SSI was 6.72 (95%CI: 6.41-7.05) and 4.86 (95%CI: 4.70-5.02) for patients without an SSI. There was an overall significant increased risk of BCRL in patients with an SSI (adjusted HR, 1.11; 95%CI: 1.04-1.17), with the highest risk 3 years after breast cancer treatment (adjusted HR, 1.28; 95%CI: 1.08-1.51)
Conclusion:
This large nationwide cohort study showed that SSI was associated with an overall 10% increased risk of BCRL. These findings may be used to identify patients at high risk of BCRL that would benefit from enhanced BCRL surveillance.

The impact of neoadjuvant chemotherapy on surgical outcomes following autologous and implant-based immediate breast reconstruction: A systematic review and meta-analysis.

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Abstract

Background: The impact of neoadjuvant chemotherapy (NACT) on the complication rate after implant-based and autologous breast reconstruction remains unclear. The aim of this study was to systematically review and perform a meta-analysis of previously published studies on immediate breast reconstruction (IBR) in breast cancer patients treated with NACT compared to controls.

Material and method: PubMed and EMBASE were searched to identify studies assessing the impact of NACT on major and minor complications after IBR. The primary effect measures were relative risk (RR), 95% confidence interval (95%CI) and *p*-value.

Results: Eight studies comprising 51,731 patients were included in the meta-analysis. Of these, 5,161 patients received NACT and 46,570 patients did not receive NACT. In regard to major complications, NACT did not statistically significant increase the rate of reconstructive failure (RR=1.35, 95%CI=0.96-1.91, *p*=0.09), the rate of mastectomy skin-flap necrosis (RR=1.39, 95%CI=0.61-3.17, *p*=0.44) or the rate of reoperation (RR=1.09, 95%CI=0.87-1.37, *p*=0.45). Regarding minor complications, NACT did not significantly increase the rate of wound complications (RR=1.05, 95%CI=0.87-1.28, *p*=0.62). In a subgroup analysis of implant-based breast reconstruction following NACT, single-stage direct-to-implant (DTI) had a significantly lower implant failure rate compared to two-staged tissue expander/implant (TE/I) (RR=0.43, 95%CI=0.26-0.71, *p*=0.0011).

Conclusion: NACT did not increase the major or minor complication rate after IBR with either autologous tissue or implants. Thus, NACT and IBR should be considered a safe procedure. The review of studies describing patients undergoing implant-based breast reconstruction following NACT could indicate that single-stage DTI was a safer procedure than two-staged TE/I. However, the association requires further evaluation.

Earlier recurrence detection using routine FDG PET-CT scans in surveillance of stage IIB-IIID melanoma: A national cohort study of 1,480 patients.

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Aim/Background
Melanoma patients are followed in risk-stratified, stage-specific surveillance programs. Danish data show that, in case of recurrence, more than half of Danish patients present with distant metastases at time of first recurrence, indicating a potential gain of imaging in surveillance. The effect of routine imaging in melanoma surveillance is, however, unknown and its use heavily debated. In 2016, Denmark was the first country in the world to implement routine imaging with positron emission tomography-computed tomography with fluorodeoxyglucose (FDG PET-CT) in a nationwide, population-based surveillance program.
The aim of this study was to determine the impact of surveillance with routine FDG PET-CT on hazard, cumulative incidence, and absolute risk of overall, locoregional, and distant recurrence detection in stage IIB-IIID cutaneous melanoma patients.

Material and method
This retrospective, population-based, nationwide cohort study used prospectively collected data from five national health registries to compare hazard, cumulative incidence, and absolute risk of recurrence in patients diagnosed in 2008-2010 (cohort 1, followed with clinical examinations) and patients diagnosed in 2016-2017 (cohort 2, followed with clinical examinations and routine FDG PET-CT at 6, 12, 24, and 36 months).

Results
1,480 stage IIB-IIID patients were included. Cumulative incidences of overall and distant recurrence were higher in cohort 2, with a peak difference at three years (32.3% vs. 27.5% and 25.8% vs. 18.5%, respectively). Hazard of recurrence was higher in cohort 2 for the first two years, with hazard rates of overall and distant recurrence of 1.16 (95% CI: 0.93 - 1.44) and 1.51 (95% CI: 1.16 - 1.96). Patterns persisted in absolute risk estimates.

Discussion/Conclusion
Stage IIB-IIID melanoma patients followed with routine FDG PET-CT had a 51% increased hazard of distant recurrence detection within the first two years of surveillance. Future studies must determine whether this earlier recurrence detection will translate into improved survival.
Forfattere

Konservativt behandlet sår gennem fire måneder viste sig at være højmalignt kutant angiosarkom

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Introduktion
Angiosarkomer er meget sjældne, højmaligne tumorer som opstår i endotelceller og udgør <1-2% af alle bløddelssarkomer. De kutante angiosarkomer præsenterer sig som hurtigvoksende, hæmatomlignende og diffust afgrænsede læsioner. Et særligt kendetegn er små ekkymoselignende metastaser i den omkringliggende hud. De sporadiske angiosarkomer har en fem- og tiårsoverlevelse på henholdsvis 34% og 14%. Den primære behandling er vid kirurgi evt. kombineret med strålebehandling eller kemoterapi.

Sygehistorie
En 71-årig kvinde var blevet ramt i panden af bagsmækken på en bil. To måneder efter traumet præsenterede patienten sig anamnestisk og klinisk med, hvad der blev vurderet som et traumatisk betinget hæmatom med efterfølgende abscesdannelse. Behandling med hyppige sårskift samt intravenøst antibiotika blev iværksat. En hudbiopsi efter seks uger viste intet malignt. Patienten blev konfereret med afdelinger for plastikkirurgi, neurokirurgi, øre-næse-hals samt sårcenter. Dette medførte en joint-venture-operation mellem øre-næse-hals og plastikkirurgisk afdeling, hvor man udførte sårrevision og lukkede defekten. Patientens tilstand recidiverede hurtigt og VAC-behandling indledtes på plastikkirurgisk afdeling. En udtalt væskeproduktion i VAC-systemets cannister ledte til udredning med CT- og MR-scanning samt neurokirurgisk vurdering for durafistel uden fund af dette. Patientens tilstand progredierede imidlertid og grundet massiv hævelse, kunne hun ikke længere åbne det ene øje og multiple cystelignende processer dannede sig i ansigtet. Durafistel mistænktes fortsat som årsag til væskeproduktionen, men inden evt. neurokirurgisk intervention, skulle fornyede hudbiopsier udelukke andre årsager. Alle biopsierne viste kutant angiosarkom. Patienten blev vurderet inoperabel og efterfølgende behandlet i onkologisk regi.

Diskussion
Responderer en tilstand ikke på en sufficient behandling, bør man revurdere arbejdsdiagnosen og ved tvivl tage sufficiente og repræsentative biopsier, gerne gentagne gange. Det anbefales generelt at tage biopsier ved manglende fremgang efter 2-6 ugers behandling. Derudover skal det understreges at anamnestisk tidsmæssigt sammenfald ikke er ensbetydende med kausalitet.

Surgical outcomes in patients with breast cancer, treated with oncoplastic surgery or lumpectomy - A quality assurance, single centre study.

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Aim: It is widely discussed whether oncoplastic surgery and lumpectomies are comparable regarding surgical outcomes, complications and oncological safety. The aim of this study is to evaluate the quality of the surgical treatment of breast cancer patients, who underwent breast conserving surgery with or without oncoplastic techniques. Secondary objectives included postoperative complications.
Material and methods: From September 2020 until December 2021, 130 patients were included in a retrospective, observational, quality assurance study. Inclusion criterion was breast cancer patients, who either underwent oncoplastic surgery or lumpectomy. The patients were evenly distributed in two groups (n = 65) and matched on age, and surgeon / or date of operation. Variables included patient and tumour characteristics, surgical details and techniques, and complications. Data were compared using statistical analyses.
Results: Demographics, tumour histology and use of neoadjuvant therapy were homogenous between the two groups. Tumours were significantly larger in the OPS group (25.00 mm *vs.* 15.00 mm, $p < 0.001$) and significantly more multifocal ($p = 0.002$). The median operation time was significantly longer in the OPS group compared to the BCS group (140 min. *vs*. 73 min., $p < 0.001$). Regarding complication rates (BCS = 16.9% *vs.* OPS = 19.4%) and time to adjuvant therapy (BCS = 58 days *vs.* OPS = 59 days), no statistical differences were found between the groups.
Conclusion: The quality of the oncoplastic treatment in this study/ in our department is high and with corresponding standards to the lumpectomies, to which it is considered as a safe alternative.

Risk Stratification of Local Flaps and Skin Grafting in Skin Cancer-Related Facial Reconstruction: A Retrospective Single-Center Study of 607 Patients

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Background: Non-melanoma skin cancer (NMSC) takes up a substantial fraction of dermatological and plastic surgical outpatient visits and surgeries. NMSC develops as an accumulated exposure to UV light with the face most frequently diagnosed. **Method:** This retrospective study investigated the risk of complications in relation to full-thickness skin grafts (FTSG) or local flaps in 607 patients who underwent facial surgery and reconstruction at a high-volume center for facial cancer surgery at a tertiary university hospital. **Results:** Between 01.12.2017 and 30.11.2020, 304 patients received reconstructive flap surgery and 303 received FTSG following skin cancer removal in the face. Flap reconstruction was predominantly performed in the nasal region (78%, *n* = 237), whereas FTSG reconstruction was performed in the nasal (41,6%, *n* = 126), frontal (19.8%, *n* = 60), and temporal areas (19.8%, *n* = 60), respectively. Patients undergoing FTSGs had a significantly higher risk of hematoma ($p = 0.003$), partial necroses ($p < 0.001$), and total necroses ($p < 0.001$) compared to flap reconstruction. Age and sex increased the risk of major complications (hematoma, partial or total necrosis, wound dehiscence, or infection) for FTSG, revealing that men exhibited 3.72 times increased risk of major complications compared to women reconstructed with FTSG. A tumor size above 15 mm increased the risk of hematoma and necrosis significantly. In summary, local flaps for facial reconstruction after skin cancer provide lower complication rate compared with FTSGs, especially in elderly and/or male patients. The indication for FTSG should be considered critically if the patient's tumor size and location allow for both procedures.

The role of depressor anguli oris muscle hypertonicity in post-paretic facial synkinesis: Early Danish experience with myectomy for reanimation of smile

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Background
Patients with post-paretic synkinesis after facial nerve injury often fail to produce a satisfactory smile due to antagonistic action of a hypertonic depressor anguli oris (DAO) muscle opposing the zygomaticus major muscle. Hence, DAO muscle resection (myectomy) has evolved as a novel intervention for smile improvement in select patients with facial nerve injury.

We present our experience with preoperative diagnostic DAO muscle block and subsequent DAO myectomy for reanimation of smile in a 31-year-old woman with right peripheral facial nerve injury after multiple cholesteatoma surgeries.

Methods
The patient underwent clinical examination of facial nerve function which revealed a sigmoid smile and a palpable strong right DAO muscle. The diagnosis of DAO muscle hypertonicity was confirmed by visible improvement in smile symmetry observed 15 minutes after right DAO muscle block induced by injection of 3 mL lidocaine with epinephrine. Subsequently, the patient requested right DAO myectomy which was performed through an intraoral incision under local anesthesia.

The effect of myectomy was analyzed on clinical photos using Emotrics software measuring modiolus angle (measured between the vertical midline at the junction of the lower vermillion border and the oral commissure) and dental show during smile (measured as the vertical distance between the mucosal borders of the upper and lower lip taken halfway between the vertical midline and the oral commissure).

Results
At 5 months postoperative follow-up the patient expressed contentment. DAO myectomy had improved modiolus angle with 14 degrees as well as increased dental show during open mouth smile with 2 mm.

Conclusion
Ipsilateral DAO myectomy improves smile symmetry in patients with post-paretic facial synkinesis selected based on preoperative evaluation with a diagnostic muscle block. The procedure is performed under local anesthesia as outpatient surgery with minimal recovery time.

In-house computer-aided design and manufacturing service for accelerated free fibula flap reconstruction of mandibular defects after head and neck cancer surgery

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Background
Computer-aided design and manufacturing (CAD/CAM) have become gold standard for optimizing surgery in free fibula flap reconstruction of mandibular defects. However, third party solutions are hampered by high costs and lengthy lead times, the latter problematic in cancer surgery.
This study aimed to investigate the effectiveness of an in-house CAD/CAM laboratory for expeditious planning and execution of free fibula mandibular reconstruction in head and neck cancer patients.

Methods
This retrospective cohort study compared head and neck cancer patients undergoing segmental mandibulectomy and immediate free fibula flap reconstruction treated before and after implementation of in-house CAD/CAM. Study endpoints were time delay until surgery and fibula flap ischemia time. Cases in the two groups were matched on the number of fibula segments required for mandibular reconstruction. Patients operated without CAD/CAM underwent mandibular resection and fibula flap harvest, shaping, and inset by "free hand". The CAD/CAM group underwent preoperative virtual surgical planning; 3D printing of cutting guides for the mandibulectomy and fibula osteotomies; and 3D printing of the neomandible for preoperative plate shaping. Outcomes were compared with the unpaired *t*-test or Wilcoxon rank-sum test.

Results
Sixteen patients were included in both groups. Treatment delay from preoperative consultation to surgery did not increase after implementation of in-house CAD/CAM with median 6 (range 6-20) days in the CAD/CAM group and 8 (6-20) days in the control group ($P = 0.48$). Utilization of CAD/CAM significantly reduced fibula flap ischemia time by mean 18 [95% confidence interval 3; 34] minutes from 93 [78; 107] minutes in the control group to 75 [67; 82] minutes in the CAD/CAM group ($P = 0.022$).

Conclusion
CAD/CAM-assisted mandibular reconstruction was implemented for head and neck cancer patients without causing treatment delay. Furthermore, CAD/CAM reduced fibula flap ischemia time.

Reconstruction of the maxilla with a 3D printed titanium implant and coverage with a free radialis flap: A case report on the outcome.

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Abstract:
Aim/background: Facial deformities can be challenging to reconstruct and requires meticulous preparation. Patients receiving immunosuppression therapy are at higher risk of postoperative complications. A 22-year-old male presented with acute hepatic failure and underwent liver transplantation. The subsequent immunosuppressing therapy resulted in an invasive fungal infection involving the left lower eyelid, skin of the left cheek and the underlying zygomatic bone. The infected area was resected, and initial closure was made using a myocutaneous latissimus dorsi flap. Three years later the patient was examined at our department. The patient was troubled by having no airflow through the right nostril and not having a left nostril at all. Secondly, the patient experienced trouble with the left eye tearing up and double sight when looking upward. Furthermore, he was troubled by missing teeth in the left part of the maxilla. Lastly, he was not entirely satisfied with the general cosmetic outcome.
Materials and method: These issues were addressed in two stages of surgery while taking into account that the patient was immunosuppressed.
Results: The patient did not suffer any complications or adverse effects. Overall, the patient was satisfied with the surgery, and we observed a clear improvement in patient reported outcome on both the cosmetic and functional results of the problems we addressed.
Conclusion: We present the outcome as an example on how to plan surgery on an immunosuppressed patient with a complex surgical issue. We hope that the case can provide insight to other colleagues with similar cases.

Sen debut af vitiligo som første tegn på disseminering af modermærkekræft

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Formål/baggrund:
Vi ønsker at beskrive en case, hvor en patient med tidligere melanom og positiv sentinel node-biopsi udviklede vitiligo fire år efter sygdomsdebut, uden at plastikkirurgiske melanomkontroller eller dermatologisk vurdering gav anledning til mistanke om recidiv. Først efter yderligere tre et halvt år blev han henvist til plastikkirurgisk afdeling på mistanke om melanom associeret vitiligo grundet høj alder ved vitiligo debut og havde da dissemineret sygdom.

Materiale og metode:
Patientcase:
En 67-årig mand var tidligere diagnosticeret med og behandlet for melanom med positiv sentinel node biopsi med mikrometastase med perinodal vækst. Patienten blev fulgt i højrisiko kontrolprogram med kliniske kontroller i fem år og PET-CT-skanninger efter 6, 12, 24 og 36 måneder, alle uden malignitetsmistanke. Et år efter sidste PET-CT-skanning, udviklede patienten vitiligolignende forandringer svarende til over- og underekstremitet, uden at der blev rejst mistanke om recidiv. Patienten blev afsluttet efter fem års kontrolforløb.
Syv et halvt år efter debut af melanomsygdom henvendte patienten sig hos en praktiserende dermatolog angående vitiligotilstanden. Grundet atypisk sen debut af vitiligo og anamnese med melanom blev patienten henvist til plastikkirurgisk afdeling med mistanke om recidiv. Der blev ikke fundet kliniske tegn på recidiv, men PET-CT-skanning viste dissemineret sygdom.

Diskussion/konklusion
Vitiligo er en velkendt hudforandring, og diagnosen beror på det letgenkendelige kliniske billede i form af pletvise, ikkeskællende, mælkehvide maculae i huden. Tilstanden debuterer ofte i alderen fra 10-30 år. Vitiligolignende forandringer kan imidlertid også være første symptom på primært eller dissemineret melanom.

Vi ønsker med denne sygehistorie at adressere vigtigheden i at have melanom i tankerne, hvis en patient præsenterer sig med vitiligo i sen alder, specielt hvis patienten tidligere er kendt med melanom.

Kirurgisk behandling af svær refraktær Acne Keloidalis Nuchae med excision og rekonstruktion med delhudstranplantat i kombination med vacuumterapi (VAC)

Forfattere:
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Introduktion:
Acne Keloidalis Nuchae (AKN) er en kronisk inflammatorisk hudtilstand, der forårsager pustler/plaques og ardannelse i nakke- og occipitalområdet. Tilstanden kan, ud over at være kosmetisk skæmmende, være ekstremt smertefuld, give psykiske gener og være fysisk invaliderende. Tilstanden ses overvejende hos yngre mørkhudede mænd af afrikansk afstamning med en incidens rapporteret mellem 0,45% og 9%. Medicinsk behandling er førstevalg til behandling af mild til moderat AKN. Ved svær eller behandlingsrefraktær AKN kan kirurgisk excision være en potentiel behandling. Dette anvendes dog sjældent, da det ikke findes den store evidens på området og man har været i tvivl om helingspotentialet efter excision.

Sygehistorie:
26-årig mand af mellemøstlig afstamning led af AKN i nakke- og occipitalområdet, med daglige symptomer i form af smerte, hævelse og ildelugtende pus. Derudover var patienten svært påvirket af tilstanden psykisk i hverdagen, især i sociale sammenhænge.
Patienten var i en periode på 7 år blevet behandlet medicinsk med topiske og systematiske lægemidler i dermatologisk regi uden nogen nævneværdig effekt. Som en sidste udvej, blev det vurderet at tilbyde kirurgisk excision af området med lukning med delhudstransplantation og postoperativ vacuumterapi. Området med AKN målte præoperativt på 20x8x3 cm.

Resultater:
Patienten blev udskrevet postoperativt ved godt helbred, smertefri og med planlagt opfølgning. Efter 8 dage var 80% af transplantatet med anslag til sårbunden, og efter blot 6 uger var området 100% helet.

Diskussion
Vi mener at vores case viser at det er muligt at kirurgisk behandle AKN med godt resultat.
Valget af rekonstruktionsmetode afhænger af forskellige faktorer, såsom patientens morbiditet og compliance, størrelsen og placeringen af AKN samt det primære postoperative mål.
Baseret på vores erfaring anbefaler vi at bruge vacuumterapi som førstelinjebehandling i kombination med delhudstransplantation til behandling af svær AKN, da det er let at bruge, relativt smertefrit, og minimerer risikoen for hudtransplantattab, samt forkorter rekonvalescenstiden.

Udvikling af en åben case baseret uddannelsesplatform i plastikkirurgi og annoncering af top 3 vinderne af case konkurrencen

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Formål: Vi ønsker at motivere til vidensdeling, samt lette adgangen til plastikkirurgisk læring. Vi ser en stor værdi i case baseret læring og har derfor afholdt en case konkurrence, hvor læger fra Danmark, Tyskland og Schweiz indsendte cases online på www.PlastSurgeon.org.

Metode: I januar-april 2023 blev indsendt plastikkirurgiske operations cases i step-by-step format via vores online case modul. Cases blev vurderet af et højt kvalificeret ekspertpanel af speciallæger fra hele landet, Tyskland og Schweiz, der gav scoren 1-10 i parametrene: Billedkvalitet, tekstkvalitet, klinisk løsning af casen, reproducérbarhed ud fra step-by-step, kvalitet af referencer og pearls&pitfalls, samt overordnet formidling af casen (tæller dobbelt).

Resultater: Top 3 vinderne blev fundet ud fra gennemsnittet af points givet af ekspert panelet. Vinderne i top 3 bliver annonceret på DSPR forårsmødet, samt får deres case lagt på forsiden af PlastSurgeon, et diplom med podie-placeringen og en kontant præmie. Alle andre cases bliver lagt på websiden under ”cases” som let kan tilgås.

Diskussion: Uddannelsesplatformen har aktuelt 2500 månedlige (30.000 årlige) besøgende fra Danmark, samt især USA, England, Tyskland, Kina, Indien og Australien. Et højt volumen af cases muliggør læring af flere løsninger på de enkelte problemstillinger. Vi afholdt denne første case konkurrence for at motivere og skabe en platform, der muliggør vidensdeling på tværs af afdelinger og landegrænser. Vi skal sikre at alt materiale er opdateret og på et højt fagligt niveau, samt fortsat at behandle data anonymiseret og krypteret.

Konklusion/Perspektiver: Vi fortsætter udviklingen af uddannelsesplatformen og vil årligt afholde mindst én case konkurrence. Vi ser gode perspektiver for videreudvikling og internationalt samarbejde.

Diagnostik og mikrokirurgisk rekonstruktion efter traumatisk læsion af perifere nervus facialis

Forfattere: Mona Sharghbin, Andreas E. Krag, Christian Bang, Lars Bjørn Stolle & Emir Hasanbegovic
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Introduktion
Traumatiske læsioner i ansigtet kan kompliceres af skader på perifere grene af nervus facialis, der ikke må overses. Ubehandlet vil disse skader permanent påvirke ansigtets mimiske funktion, herunder øjenbeskyttelse, samt forandre patients udseende.
På baggrund af den nyeste litteratur på området præsenterer vi en systematisk tilgang til diagnostik og behandling af traumatiske skader på perifere nervus facialis med udgangspunkt i en case.

Sygehistorie
En 17-årig pige pådrog sig tre dybe læsioner i højre side af ansigtet ved at få en 200 kg tung glasrude over sig. Patienten kunne ikke løfte sit højre øjenbryn eller rynke højre side af panden og blev subakut overflyttet til behandling på Plastik- og Brystkirurgi ved Aarhus Universitetshospital. Ved anvendelse af mikrokirurgisk teknik blev de læderede temporale nervegrene identificeret og sutureret ved end-to-end neurorafi. Ved 9-måneders kontrol havde patienten genvundet fuld funktion af højre m. frontalis.

Diskussion
Vi præsenterer her forslag til den kliniske håndtering af patienter med bløddelslæsion i ansigtet og akut opstået komplet eller inkomplet facialisparese.

Ved grundig anamnese fastslås skadestidspunktet, der er afgørende for behandlingen. Læsioner på perifere nervus facialis skal erkendes klinisk ved systematisk objektiv undersøgelse af alle nervegrenes innervationsområder.
Patienten holdes fastende, såret skylles forsigtigt, og der sættes eventuelt aflastende hudsuturer. Herefter overflyttes patienten til en plastikkirurgisk afdeling med højtspecialiseret mikrokirurgisk funktion.

I generel anæstesi eksploreres nervelæsionen.
Hvis der identificeres en central og perifer nerveende, der kan adapteres tensionsfrit, foretages end-to-end-neurorafi optimalt inden 24 timer og senest 72 timer efter skadestidspunktet. Såfremt de to nerveender ikke kan adapteres tensionsfrit, rekonstrueres med en autolog nervegraft. I tilfælde hvor nerveenderne ikke kan identificeres, foretages sårbehandling med klinisk postoperativ kontrol.

Denne højtspecialiserede behandling bør initieres rettidigt, inden 24-72 timer efter skaden, før der opstår ødem, fibrose og degeneration af de perifere nerveender for at kunne genvinde funktionen af den mimiske muskulatur.

Ord: 298/300

Perioperative examination of inflammatory markers in relation to sentinel lymph node biopsy in patients with melanoma; a pilot study

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Abstract

Introduction and Objectives: Sentinel lymph node biopsy (SLBN) is essential in staging melanoma and properly selecting patients for adjuvant immunotherapy. However, surgically induced inflammation can potentially aid the progression of remaining malignant cells and affect prognosis. The inflammatory marker neutrophil-to-lymphocyte ratio (NLR) is in serval malignancies, melanoma amongst, a negative prognostic and predictive marker when values exceed 5. It is not yet established if SLNB induces a systemic inflammatory response and increases NLR.

Materials and Methods: We conducted a prospective controlled longitudinal pilot study. In total, 20 patients with melanoma undergoing SLBN were included. Perioperative blood samples were collected prior to SLNB, 2 hours, and 6 hours postoperatively. In blood samples, we investigate NLR as the primary outcome and, secondarily, white blood cell differential count, pro-inflammatory cytokines, and acute phase reactants.

Results: NLR increases 5-fold from 1.94 (95% CI:1.5:2.3) preoperatively to 9.5 (95% CI:7.5:11.6) 2 hours postoperatively with statistical significance (mean diff. 7.6 95% CI:-9.68:- 5.54) ($p<0.0001$). NLR increases further 6 hours postoperatively to 16.04 (95% CI:9.89:22.19) (mean diff. 6.47 95% CI:-11.49:-1.46) ($p=0.0151$).

Conclusion: SLNB induces a moderate postoperative systemic. This pilot study has laid the foundation for further research on this topic. We are conducting a clinical trial investigating perioperative inflammation, prognosis, and possible targets for optimizing treatment.

Game-based Learning of Clinical Skin Cancer Diagnosis Skills: A Systematic Review

Authors
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Aim/background:
Treatment of melanoma and other skin cancers pivots on timely diagnosis, which normally starts with clinical examination. Reaching proficiency diagnosing such skin lesions requires substantial experience and training interventions that can steepen the learning curve are much needed. Game-based learning (GBL; *i.e.* gamification and serious games) is a promising approach, which employs game-elements during training. Understanding how GBL can facilitate acquisition of skin cancer diagnostic skills would be highly useful to improve training. Here, we aimed to systematically review the literature on GBL for acquisition of skills in skin cancer diagnosis including state of evidence, strengths, limitations, and future possibilities.

Material and Method:
Following the PRISMA guidelines, relevant studies were identified from four databases (PubMed, Embase, Web of Science and the Central Cochrane Library). Data on interventions were extracted independently by two reviewers. Study quality was assessed using the Medical Education Research Study Quality Instrument (MERSQI).

Results:
Of the 3,036 papers initially screened, six were extracted for review. GBL was generally applied as a serious game, rather than gamification. The serious games were classified into different game types. Five of the eight games were physical: two designed as an escape room, two card games and one board game. The remaining three had digital elements, where two were an in-class competitive quiz; one was an online/app based game. Positive opinions on GBL were generally reported but the study quality was low with a median MERSQI score of 9,75/18 points, frequently due lacking objective outcomes and control groups.

Discussion/Conclusions:
Despite the positive opinions reported on GBL, there is no evidence to supports its use for training skin cancer diagnosis. Future studies should focus on objective—preferably clinical—outcomes, controlled study designs and examine how gamification, rather than just serious games, might be employed to accelerate learning.

Complete lower lip reconstruction by a.m. *Bernard-Bürrow-Webster technique* – a case report

Authors: Faisal Ghairat, Navid Toyserkani, Jørgen Hesselfeldt

Institution: Zealand University hospital, Roskilde, Plastic and Breast Surgery Department

Aim/background:

The most frequent malignancy of the lower lip is squamous cell carcinoma, which accounts for more than 90% of the cases. The main risk factor is previous sun exposure, however the etiology of lip cancer is multifactorial. Reconstruction of lower lip defects following surgical excision can a challenging especially when defect result in near total or complete lower lip resections.

The Bernard-Bürrow-Webster technique is a well described but not often needed option for reconstruction of total or near total defects of the lower lip

Case:

We present a case of a female patient age 80 who presented with a large squamous cell carcinoma located on the the lower lip where excision resulted in a near total lower lip defect. It was reconstructed using the Bernard-Bürrow-Webster technique.

Discussion:

Large tumors in the lower lip are debilitating and pose a reconstructive challenge. The aim is to restore a functional and aesthetic appearance. Numerous reconstruction methods after cancer removal have been reported, however, the reconstruction of near total lower lip defects remain a challenge.

Conclusion:

In this case we report a successful case of complete lower lip reconstruction by Bernard-Bürrow-Webster technique which can be used in lower lip reconstruction. Early detection and treatment is important to avoid the need of extensive reconstruction as described in this case.

Novosorb Biodegradable Temporizing Matrix in the treatment of complex wounds: a systematic review

Authors

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Background

Complex wounds such as deep-partial and full-thickness burns, represent a challenging area for patient care. Traditional therapies using split-thickness skin autograft over defects where the entire dermis has been lost, may lead to wound contracture and hypertrophic scarring, with resulting functional disability as well as a poor aesthetic outcome. The dermal layer of skin accounts for up to 95% of the thickness, and is an important factor in skin mobility. To better reconstruct a functional dermis a range of different dermal substitutes have been proposed such as Matriderm, Integra and Novosorb Biodegradable Temporizing Matrix (BTM).

Materials and methods

From database inception until March 2023, Google Scholar, Embase, Web of Science, Scopus, PubMed, CINAHL and the Cochrane Library was searched for studies of any design and in any setting that included patients treated with the NovoSorb Biodegradable Temporizing Matrix (BTM). We searched for articles with the search string Biodegradable Temporizing Matrix. We retrieved 29 studies from PubMed, 38 from Web of Science, 133 from Scopus, 14 from CINAHL and 444 from Google Scholar.

Results

We retrieved a total of 699 studies, 29 studies from PubMed, 38 from Web of Science, 133 from Scopus, 14 from CINAHL and 444 from Google Scholar. After duplicate removal, abstract screening and full-text screening, a total of 68 studies were included.

Discussion

No randomized controlled trials were identified. Although the use of BTM looks promising, comparative studies are needed to draw definite conclusions regarding the use of BTM.

Body contouring surgery after bariatric surgery improves and maintains health-related quality of life and satisfaction with appearance: a 10-year follow-up from an international cohort

Authors:
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Abstract:

Background: The long-term effects of bariatric surgery (BS) and body contouring surgery (BCS) from the patients' perspective have not been well established. The aim of this study was to investigate the impact of BCS on health-related quality of life (HRQL) and satisfaction with appearance of patients undergoing BS using the BODY-Q through the weight loss trajectory (i.e., from pre-BS to post-BCS). Additionally, we aimed to compare the patients' BODY-Q scores with the normative scores of the general population.

Materials and methods: The core-outcome scales of the BODY-Q (social, sexual, psychological, physical function, body image, abdomen, and body) were utilized in patients from six European countries (Denmark, the Netherlands, Finland, Italy, Poland, and Germany) pre- and post-BS and BCS in a prospective cohort, with a follow-up ranging from 3-months to 10 years postoperatively. A mixed model was used to analyze changes in HRQL and appearance and to examine the impact of patient-level covariates on these scales.

Results: The study included 24,604 assessments from 5,620 patients. BS initially resulted in improved scores in HRQL and appearance 3-12 months postoperatively, but the scores decreased over time. In contrast, patients who underwent BCS after BS either showed continuously improved scores from 3-12 months to 10 years postoperatively or maintained high scores over time ($p<0.001$).

Discussion/Conclusion: Our results provide evidence of the positive impact of BS and BCS on patients' lives and underscore the importance of considering BCS to complete the weight loss trajectory. BCS significantly improves HRQL and satisfaction with appearance with maintained improvements of scores over time, contrary to patients who undergo BS without BCS.

Further Psychometric validation and test-retest of the WOUND-Q

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Background: The WOUND-Q is a wound-specific PROM developed for all types of chronic wounds located anywhere on the body. It has been found reliable and valid, but the final version has not yet been tested in a bigger international sample. The purpose of this study was to examine the reliability and validity of nine WOUND-Q scales by Rasch Measurement Theory Analysis and perform a test-retest study (TRT).
Method: The sample for this study included persons with a chronic wound (≥3 months duration). Members of the international online community Prolific.com, which were eligible to this study, were invited to complete a survey containing 9 WOUND-Q scales, the Wound-QoL and EQ-5D-5L in August 2022. A test-retest survey containing 8 WOUND-Q scales was performed 7 days after the first survey. Rasch measurement theory (RMT) analysis was used to examine the reliability and validity of the WOUND-Q. To examine test-retest reliability intraclass correlation coefficients (ICC), the standard error of the measurement (SEM), and the smallest detectable change (SDC) were calculated.
Results: A total of 421 patients from 22 different countries completed the first survey, with a response rate of 76.5%. Eight WOUND-Q scales underwent the RMT analysis. The RMT analysis provided evidence of the reliability with person separation index values > 0.7, Cronbach's alpha > 0.8 and ICC values > 0.82. In terms of validity only 1 of 64 items had disordered threshold, 7 items were outside the item fit criteria, and of these only 1 item had a significant chi-square p-value after Bonferroni adjustment. All scales were in general target to the sample, and able to measure a clinical hierarchy. The SDC values ranged between 5.9 – 7.4.
Conclusion: The WOUND-Q is a reliable and valid PROM to be used in an internationally in chronic wound patients.

Thawed allogeneic mesenchymal stromal cell therapy for fat grafting does not increase fat graft retention in an immunocompetent rat model – The sum of a PhD

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Introduction

Mesenchymal stromal cell (MSC) therapy, have shown to increase long-term fat graft. The main hypothesis is that MSC support the fat graft by direct differentiation, trophic paracrine functions and immunomodulation. Most studies utilize an autologous approach for the MSC therapy. An autologous approach, however, is cumbersome, expensive and difficult to standardize. Allogeneic MSC therapy has proven its potential for several clinical indications, but few studies in allogeneic MSC therapy for fat grafting exists. Preclinical evidence exists showing allogeneic MSCs to increase long term fat graft retention. MSCs can be cryopreserved and thus provide off-the-shelf availability. No study, however, have investigated the use of a thawed cryopreserved allogeneic MSC therapy for fat grafting. The presented series of studies therefore aimed to investigate this approach.

Materials and Methods

A series of three studies was performed:
1 Procurement of allogeneic MSCs: *In-vitro* analysis of MSC numbers and viability. The impact of thawing, reformulation, MSC concentration and storage conditions was investigated.
2 Fate of allogeneic MSCs in fat grafts: *In-vivo* short-term tracing of autologous and allogeneic MSCs in an immunocompetent rat model. MSC retention and host macrophage polarization was investigated.
3 Long-term fat graft retention: *In-vivo* effect of autologous and allogeneic MSCs. The dose of allogeneic MSCs, the allogenicity, the viability and effect of MSC acclimatization was investigated.

Results

1: A simple clinical compatible thawing, reformulation and storage protocol was developed using only two commonly clinical available products, isotonic saline and human serum albumin.
2: None of the administered MSCs were present after 14 days. Macrophages became positive for the tracing marker indicating phagocytosis of administered MSCs.
3: None of the approaches for thawed allogeneic or autologous MSCs was able to increase 3-month fat graft retention. Contrary, high doses of allogeneic MSCs significantly reduced long-term fat graft retention.

Discussion

Contrary to much of current literature, we were unable to increase long-term fat graft retention by MSC therapy. This raises the questions is cryopreservation of MSCs a no-go for fat grafting? Is the rodent model representative for fat grafting? Is there a publication bias? Let's discuss.

Using a clinicopathologic and gene expression model to predict sentinel lymph node metastasis in primary cutaneous melanoma could potentially reduce the rate of sentinel lymph node biopsies with >70%: a multicentre Danish cohort study

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Background: Sentinel lymph node biopsy (SLNB) is used to staging and guide subsequent management of melanoma. However, proper patient selection for SLNB is challenging; approx. 80% of all SLNB are negative, with even higher negative rates when looking only at thin melanoma (T1) which account for the vast majority of cases. The clinicopathological and gene expression profile model (CP-GEP) was developed to identify low risk melanoma patients who may safely forgo SLNB. The CP-GEP combines Breslow thickness and patient age with the expression of eight genes to classify patients as high or low-risk for nodal metastasis.
This study presents data from an independent validation of the CP-GEP in a multicentre Danish cohort.

Material and Method: Archived formalin-fixed paraffin-embedded primary cutaneous melanoma tissue from 537 T1-T3 melanoma patients was collected and analysed with CP-GEP. The patients had undergone SLNB between 2010 and 2015 at either of two university clinics in Denmark. The CP-GEP result was compared with the SLNB result, calculating the diagnostic value of CP-GEP for SLNB metastasis.

Results: Median age at diagnosis was 58 years (IQR 44-70) and median Breslow thickness was 1.3 mm (IQR 0.95-1.82). The distribution of T1, T2 and T3 melanoma was 32.8%, 46.9% and 20.3%, respectively. The SLNB positivity rate was 18.1%. The CP-GEP model identified 219 (40.8%) patients as having a low risk for nodal metastasis with a negative predictive value (NPV) of 91.3%. When analysing the T1 subgroup (n=176) the CP-GEP low risk rate was 72.7% with a NPV of 94.5%.

Conclusion: The CP-GEP identifies most patients at low risk for SN metastasis, especially in patients with T1 melanoma. Results are in line with previous retrospective validation studies on European and US cohorts. This study, however, contains the largest T1 subgroup validation with a potentially very high SLNB reduction rate.

Behandling af Pigmenteret epitilioidt melanocytom (PEM) hos en niårig pige

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Baggrund

Pigmenteret epithelioidt melanocytom (PEM) er en sjælden melanocytisk tumor som især forekommer hos børn og unge. Ætiologien af PEM er ukendt. Klinisk viser PEM sig som en blå/sort nodulær læsion og forveksles ofte med melanom. Det metastatiske potentiale af PEM er begrænset til regionale lymfeknuder og fjernmetastasering er ualmindelig.

Case

9-årig pige henvist til plastikkirurgisk regi pga. mistanke om MM sv.t. højre kind ved grænsen til højre nedre øjenlåg. Elementet excideres i tæt afstand af hensyn til lukning af defekten. Histologisk fandtes PEM. Da denne tumortype er sjælden, vælger man at få vurdering af patologer fra både OUH og en ekspert i Australien. Der opnås enighed om, at der er tale om PEM uden malignitet. Vores nationale kliniske retningslinjer foreslår re-excision og sentinel node-diagnostik sv.t. melanombehandling. Patienten blev drøftet på MDT og man enedes om international vurdering af casen. Denne blev foretaget ved Royal Prince Hospital i Australien. Et tværfagligt team bestående af læger fra relevante specialiserede afdelinger, vurderede, at yderligere kirurgi ikke var indiceret, og at man i stedet varetog et kontrolforløb. Det blev på opfølgende MDT sat til i alt 5 år.

Diskussion

PEM er et sjældent hudfænomen, og derfor svær at formulere en helt præcis kirurgisk retningslinje for. Pga. dets status som melanocytderiveret neoplasme, er det nærliggende at gribe til gældende nationale retningslinjer for melanomsygdom, dog med potentiel risiko for overbehandling. Her viser den regionale MDT sit værd ift. diskussion af behandlingsniveau, samt viden om, hvor der kan trækkes på bredere erfaring internationalt. I dette tilfælde blev præparaterne vurderet af et team af patologer i Australien ledet af professor Richard Scolyer ved Royal Prince Alfred Hospital, Sydney, Australien.
Den fortsatte dataindsamling på området via kontrolforløb, samt publicering af cases, er vigtig, således at en mere præciseret retningslinje for PEM en dag kan blive formuleret.

Don’t always cut it out when you’re in doubt!

Forfattere: Jens Hjermind Højvig, Carla Ragnhild Kruse, Lisa Toft Jensen
Institution arbejdet udgår fra: Afdeling for Plastikkirurgi og Brandsårsbehandling, Rigshospitalet

Formål/Baggrund: Pyoderma gangraenosum (PG) er en sjælden hudlidelse, som klinisk præsenterer sig som et hurtigt voksende sår, der er smertefuldt. Diagnosen stilles klinisk, men kan understøttes af biopsi af området.

Materiale og metode: 57-årig kvinde, henvist til plastikkirurgisk vurdering med sår distalt for knæleddet udviklet umiddelbart efter total højresidig knæalloplastik. Såret er hurtigt voksende, ildelugtende og med nekrotiserende rande. Umiddelbart tages der kontakt til plastikkirurgisk afdeling, da man initialt mistænker, at der kan være tale om en komplikation til den totale knæalloplastik, hvorfor man søger råd om kirurgisk rekonstruktion af området. Efter yderligere klinisk vurdering mistænkes, at såret muligvis er opstået uden relation til underliggende protese. Det besluttes at foretage biopsi inden evt. revisionskirurgi.

Resultater: Klinisk mistænkes PG, hvilket underbygges af det biopterede materiale. PG medfører sår af immunologisk type, hvorfor kirurgisk revision af disse ikke normalvis er indiceret, da det kan føre til progression i den ulcerative tilstand. Patienten bliver derfor behandlet medicinsk og fulgt i ambulatoriet.

Diskussion/Konklusion: Ved vurdering af patienter med sår, der umiddelbart vil have gavn af plastikkirurgisk intervention og behandling bør anamnesen og den naturlige patofysiologi vurderes i sin helhed, og hvis disse ikke stemmer overens, må den initiale plan revurderes. Ved kirurgisk revision kunne denne patient med stor sandsynlighed have mistet sin knæledsprotese.

Ny behandlingsstrategi for brandsårspatienter med mucormycose – en case serie

Forfattere: Jens Hjermind Højvig, Christian Lyngsaa Lang, Christian Overgaard, Marie Helleberg, Rikke Holmgaard

Institution arbejdet udgår fra: Rigshospitalet, Afdeling for Plastikkirurgi og Brandsårsbehandling

Formål/Baggrund: Mucormycoser er en frygtet gruppe af alvorlige infektioner med skimmelsvampe, der kan medføre ekstensive nekroser og behov for omfattende debridement. Tilstanden rammer typisk immunsupprimerede individer med svær komorbiditet. Ubehandlet er tilstanden associeret med høj morbiditet såvel som mortalitet. Infektion med og behandling for mucorales er mindre velbeskrevet for immunkompetente individer. Brandsårspatienter falder i en gruppe, hvis immunforsvar er påvirket grundet akut belastning, og reagerer ikke på mucormycose på samme måde som patienter med immunsuppression i gængs forstand (eksempelvis grundet længerevarende systemisk sygdom eller medicinsk behandling), hvorfor en anden behandlingsstrategi er mulig.

Materiale og metode: Over de seneste 18 måneder har vores afdeling anlagt en, i udgangspunktet, mere konservativ tilgang til behandlingen af mucorales-inficerede brandsår. Hovedtilgangen har været i.v. medicinsk behandling med fungicider. Lokalbehandling initieres kun ved tegn til progredierende infektion eller progredierende nekroser. I modsætning til gængse anbefalinger i litteraturen har aggressiv kirurgisk revision ikke været anvendt. Behandlingen varetages i tæt samarbejde mellem Brandsårsafdeling, Intensiv afdeling og Klinisk Mikrobiologisk afdeling.

Resultater: Tre patienter med brandsår efter flammeforbrænding på henholdsvis 18%, 42% og 37% total body surface area, og multiple positive dyrkninger for mucorales er blevet behandlet med forskellig grad af konservativ behandling, hvilket har ført til en fornyet behandlingsalgoritme. Infektionskontrol er opnået hos alle patienter uden tegn til recidiv af svampevækst efter 18, 4 og 1 måneder.

Diskussion/Konklusion: Konservativ behandling af mucormycoser hos immunkompetente patienter med brandsårsskader synes at være en gangbar behandlingsstrategi. Dette kan forhåbentlig spare patienterne for unødvendig revisionskirurgi, forlængelse af sårheling samt unødvendig yderligere armæssig byrde.

Giant panniculectomy in a superobese patient with paranoid schizophrenia.

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Background
Obese patients often present with severe body deformity. A psychiatric diagnosis can be a relative contraindication for plastic surgery and result in patients not being referred to surgery. The aim of this case is to present the course of a superobese patient with giant pannus and psychiatric comorbidity, who underwent successful panniculectomy.

Case
We present a case of a 47-year-old male with known paranoid schizophrenia and hypertension who lives in a protected home. The patient initially lost 39 kilograms (kg) on pharmacotherapy (Saxenda ®, Novo Nordisk) and a calorie reduced diet. However, upon time of surgery the patient had regained weight, resulting in a weight of 190 kg and body max index (BMI) of 62. The patient had physical difficulties from his giant pannus in terms of mobilizing, hygiene problems, multiple skin ulcers and previously hospital admissions with erysipelas. He had a strong motivation for further weight loss by exercise if the giant pannus could be removed. Panniculectomy was performed and 34.6 kg of soft tissue was removed. The patient was discharged on the 2nd postoperative day and had an uneventful postoperative course (four weeks follow-up).

Discussion/conclusion
It is well documented that obesity increases both peri- and postoperative medical and surgical complications. Obesity essentially increases the risk of depression and anxiety disorders, no larger studies are reported on schizophrenia patients.
Despite his mental condition, the patient achieved weight loss, cessation of smoking and sustained the motivation for giant panniculectomy during a work-up course of one and a half years preceding the surgery. He underwent a successful surgery and postoperative course because of careful assessment and patient engagement throughout the course.

Fri partiel latissimus dorsi-lap med direkte vac-behandling efter nekrotiserende bløddelsinfektion

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Baggrund

Kirurgisk debridement er den helbredende behandling ved nekrotiserende bløddelsinfektioner, men efterlader ofte store bløddelsdefekter. Hudtransplantater kan give den nødvendige dækning, men er sjældent tilstrækkelige, hvis der behov for stor funktionalitet og beskyttelse af større kar. En fri lap kan i sådanne tilfælde blive nødvendig for at opnå et godt postoperativt resultat (1). Brug af direkte VAC-behandling over frie lapper er en endnu relativt uafprøvet metode, hvis potentiale for accelereret sårheling i reserverede tilfælde, synes stor uden at øge risikoen for tab af lapper (2).

Sygehistorie

En 50-årig herre, opereret med venstresidig mastektomi på baggrund af brystkræft, blev dagen efter operationen indlagt med nekrotiserende bløddelsinfektion. Han opereres akut, med fjernelse af væv sv.t. venstre thoraxhalvdel, abdomen, hals og overarm, inklusiv pectoralis major+minor, det meste af latissimus dorsi, resulterende i blottede costae, samt blottet karnervebundt over ca. 20 cm i venstre aksil. Den plastikkirurgiske udfordring var blotlæggelse af kar og efterfølgende bevarelse af mobilitet i venstre skulderled. Efter VAC-behandling blev der foretaget delhudstransplantation og fri partiel latissimus dorsi lap. Operationen forløb ukompliceret og for at accelerere patientens forløb og mindske ødem og stase blev der anlagt VAC med tryk på 80 mm Hg på alle delhudtransplantater samt den frie lap. Ved første skift fem dage postoperativt var lappen forsat vital uden nekroser og delhudtransplantaterne var slået an. Efter ca. 14 dages indlæggelse med sårpleje og fysioterapi blev patienten udskrevet til eget hjem med en bevægelighed i skulderleddet på 80 graders abduktion og 45 graders fleksion.

Diskussion

Rekonstruktion med frie lapper kan være nødvendigt for at opnå bløddelsdække efter større vævstab. Komplikationer indebærer sårhelingsproblematikker, infektioner, vedvarende defekter og tab af lappen. VAC-terapi kan med sine positive egenskaber indenfor sårheling muligvis reducere behovet for yderligere rekonstruktion efter større mikrokirurgi, og mindske postoperative sårkomplikationer, uden at øge risikoen for tab af lappen (3).

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Brystkræftbehandling hos kvinder med brystaugmentation og efterfølgende brystkræft. Outcome efter lumpektomi og strålebehandling (BCT).

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Baggrund: Et stigende antal kvinder får foretaget brystaugmentation med kosmetiske implantater. Samtidig har danske kvinder en 9,7% risiko for at udvikle brystkræft. I takt med at de brystaugmenterede kvinder bliver ældre, vil de udgøre en stigende andel af brystkræftramte kvinder. Det er dog fortsat uafklaret hvilken kræftbehandling, der er bedst egnet til denne patientgruppe. Standardbehandlingen for kvinder uden brystimplantater er lumpektomi og efterfølgende strålebehandling (BCT). Formålet med dette studie var at beskrive outcome efter brystbevarende kirurgi og efterfølgende strålebehandling (BCT) af brystkræft, med bevarelse af implantat, i brystaugmenterede kvinder.

Materiale og metode: Vi inkluderede 30 konsekutive kvinder med brystimplantater der fik foretaget BCT, med bevarelse af implantat, på Herlev Hospital i perioden 2018-2021. Data blev indsamlet ved retrospektiv gennemgang af patientjournaler. Studiets primære outcome var kapseldannelsesraten omkring implantaterne efter endt behandling. Herudover blev data angående komplikationer samt onkologisk og kosmetisk outcome efter behandlingen registreret og opgjort.

Resultater: Median opfølgningstid var 29 måneder med en samlet komplikationsrate på 30% under studieperioden. Reoperationskrævende komplikationer forekom i 10% af patienterne, og resulterede alle i fjernelse eller udskiftning af implantat, mens de resterende 20% af patienterne havde ikke-reoperationskrævende komplikationer. To patienter (7%) havde positive excisionsrande og fik begge foretaget re-excision. Ingen patienter oplevede tilbagefald af deres brystkræft. Halvdelen af patienterne, med tilgængelig information (n=3/6), udviklede eller oplevede forværring af kapseldannelse omkring implantaterne. Ved sidste followup blev 63% (n=7/11) af patienterne vurderet som havende et godt eller fremragende kosmetisk resultat.

Konklusion: Vores resultater antyder, at brystaugmenterede kvinder bør informeres om risikoen for udvikling af kapseldannelse, og den potentielle påvirkning af det kosmetiske resultat, efter brystkræftbehandling med BCT. Studiet er dog blot et første skridt på vejen mod en bedre forståelse af outcome efter BCT, med bevarelse af implantat, i vores brystaugmenterede patienter.

Hypoglykæmisk shock efter høstning af delhudstransplantat – en kasuistik

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Introduktion

Høstning af hud til delhudstransplantation er en almindelig procedure i rekonstruktiv kirurgi, som kan udføres ambulant i lokalbedøvelse. Vanligvis er selve høstningen af hud ikke forbundet med andre risici end eventuelle sårhelingsproblemer.

Sygehistorie

75-årig herre kendt med velbehandlet diabetes type 1 siden den tidlige skolealder blev henvist til plastikkirurgisk afdeling til behandling af stort ulcereret spinocellulært karcinom på venstre kind. Patienten blev opereret i lokalanæstesi med excision af tumor i 1 cm's afstand over parotisfascien og rekonstruktion med delhudstransplantat høstet med dermatom fra forsiden af højre lår. Udskrevet velbefindende til ambulant udpakning af transplantatet efter 5 dage. Vanligt postoperativt regime, hvor patienten blev instrueret i at undgå varm mad og drikke, men i øvrigt måtte spise normalt. Patienten var i fast behandling med en kombination af NovoMix 4 IE og Tresiba 24. Næste morgen blev patienten indlagt med svært korrigerbar hypoglykæmisk shock.

Diskussion

Patienten gik i hypoglykæmisk shock 18 timer postoperativt og var svært korrigerbar trods IV behandling i de efterfølgende 30 timer. Han havde ikke haft episoder med hypoglykæmisk shock siden barndommen og havde vanligt et særdeles velreguleret blodsukker. Patienten spiste normalt både før og efter operationen, havde ikke været ekstraordinær fysisk aktiv og havde doseret sin medicin som vanligt.

Delhudstransplantatet til rekonstruktion blev høstet på forsiden af højre lår netop, hvor patienten vanligt doserer sin Tresiba subkutant. Ved injektion subkutant dannes multihexamerer og derved insulindepoter, hvilket medfører en langsom og kontinuerlig frigivelse.[1]

Vi mistænker, at høstningen af delhudstransplantatet lige over Tresiba injektionsstedet og deraf følgende postoperative inflammatoriske respons medførte excessiv frigivelse af Tresiba insulin fra de subkutane depoter. Symptomerne kom relativt længe efter operationen og var langvarige, hvilket passer med Tresibas langsomt indsættende og langtidsvirkende effekt.

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Explantation after prepectoral- or subpectoral implant-based primary breast-reconstruction. Identification of risk factors.

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Background

The rate of implant-based primary breast-reconstruction (primary-IBR) has been rising the recent years. Implants can be placed pre- or subpectoral and may include a synthetic- or natural-derived mesh for support. The most feared complication is implant removal. The aim of this retrospective study was to investigate patient-related, mesh-related, surgical, and postoperative factors impacting implant loss.

Method

The study was conducted as a retrospective single-center study performed at Zealand University Hospital, Roskilde, Denmark. Inclusion were primary-IBR in the period 01.01.2018-31.12.2022. Patient demographics, surgical demographics, and complications were collected from patient records. Data were analyzed using R-studio. Univariate and multivariate analysis was performed. A p-value of 0.05 was considered significant.

Results

217 patients were included in the study, whereas some were bilateral, resulting in a total of 308 breast reconstructions. By 265 breasts, there was no implant loss (86%) and 43 breasts had complications leading to implant loss (14%).

Multivariate logistic regression analysis of relevant factors showed that antihypertensive treatment (OR=10.9, 95% CI [1.48-94.8], p=0.021) as well as postoperative complications as skin necrosis (OR=237, 95% CI [31.1-3038], p<0.001) and infection (OR=28.2, 95% CI [5.89-183], p<0.001) were significant risk factors for implant removal.

Discussion/Conclusion

In this study, we found that the only patient-related risk factor for implant removal was hypertension. Primary-IBR for patients with this risk factor should be carried out with caution. Postoperative skin necrosis and infection increased the risk of implant loss, thus prevention, early identification, and treatment of those are vital to decrease the risk of implant removal.

Atypical fibroxanthoma and pleomorphic dermal sarcoma: Local recurrence and metastasis in a nationwide population-based cohort of 1118 patients

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Background: The prognosis of patients with atypical fibroxanthoma (AFX) and pleomorphic dermal sarcoma (PDS) remains uncertain and no standardized follow-up programs have been established. The purpose of the study was to provide recommendations for standardized follow-up programs of patients with AFX and PDS based on a nationwide cohort.

Materials & Methods: All patients with AFX and PDS in Denmark between 2002-2022 were identified in the Danish National Pathology Register. Risks of local recurrence and metastasis were estimated with cumulative incidence functions with all-cause death considered a competing risk. Conditional time-to-event analysis was used to assess the optimal length of the follow-up programs.

Results: A total of 945 patients with AFX and 173 patients with PDS were included. The 5-year risk of local recurrence was 10% for AFX and 17% for PDS. The 5-year risk of metastasis was 0.8% for AFX and 16% for PDS. The risk of local recurrence or metastasis after four years in both AFX and PDS was <2%. PDS mainly metastasized the first three years in >90% of the patients with 15 distant metastases (54%), nine local metastases (32%) and four regional lymph node metastases (14%). Positive margins significantly increased the risk of AFX relapse ($p<0.001$). Risk factors of PDS relapse was invasion beyond the subcutis, perineural/perivascular infiltration and increasing age ($p<0.05$).

Conclusions: The follow-up of patients with AFX can be limited to annual clinical visits for four years due to a risk of metastasis <1%. Patients with PDS have a high risk of both local recurrence and metastasis within the first three years. We recommend that patients with PDS should be followed with clinical visits every six months for three years followed by annual visits for a minimum of one year. All visits should be supplemented with PET-CT due to a high risk of distant metastasis.

Development and results of the pilot study of the MELAcare intervention

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Background
Melanoma is a major challenge to public health worldwide with rising incidence rates. In Denmark 3000 patient were diagnosed with melanoma in 2021. We need to better address the psychological and physical sequalae after melanoma surgery and at the same time accommodate the increasing number of patients. We designed a randomised controlled trial (RCT) and tested it in a pilot study; result of which are presented here.
Material and Method
The MELAcare study is a two-arm RCT with inclusion of patients with newly diagnosed stage IA-IIA melanoma. The primary principle of the intervention will be meta-cognitive strategies and normalization of emotions, and to educate patients in skin self-examination (SSE). The intervention includes 4 components; an educational booklet, 3-5 sessions with an experienced and specially trained melanoma nurse, one doctor consult, and use of the PROM questionnaire FACT-M to address physical and psychological sequalae. The pilot study evaluates the components of the intervention, workflow, and practical issues, and collects patient feedback.
Results
14 patients were included in the pilot study. All patients participated in the planned sessions and answered all study questionnaires. Most patients felt confident or very confident in performing SSE (33,3 % and 25 % respectively), and 100 % stated that they have learned how often and how to perform SSE. 84,6 % of the patients felt able to cope better with fear of recurrence, where 61,4 % of the patients knew how to use the meta-cognitive tools taught by the nurses. All patients would say ‘yes’ to participate in the RCT if they were asked.
Conclusion
The intervention was tolerated by the patients and the nurses, and the content of the intervention was delivered as intended. Valuable feedback was collected and used to adjust the MELAcare study procedure.

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Abstract

Aim/Background: A rising incidence of cutaneous melanoma causes a high prevalence of patients eligible for clinical follow-up, which increases the burden on the resources in the health care system. This study aims to investigate the effect of the current surveillance program in terms of detecting recurrence or development of de novo cutaneous melanomas and evaluate the efficacy of the different detection modalities. This includes self-skin examination, physical examination and routine imaging.

Methods: The study is designed as a retrospective cohort study. Patients with ≥1 follow-up visit(s) in the first two years after diagnosis of stage IB-IIIC disease in the melanoma surveillance program at Aarhus University Hospital in 2019 are included. Detection of recurrence rate by either physician-based examination, self-skin examination and routine imaging are compared.

Results: Two-hundred and ninety-one patients were included and 26 recurrences/de novo cutaneous melanomas were identified. Stage IIB-patients accounted for the majority of the recurrences whereas stage IB-patients had the fewest recurrences. Physician-based exams detected 39.5%, self-skin examination detected 34.9% and imaging detected 27.8% of the recurrences.

Conclusion: Physician-based examination and self-skin examination are the most effective modalities to detect recurrences. Imaging modalities detected most recurrences when performed due to suspicion. The Number Needed to Treat for stage IB was relatively high, why a prolonged interval between follow-up visits for this stage should be considered. The risk of recurrence is associated with disease stage why it is reasonable to base the follow-up program for melanoma patients on this parameter.