mode of detection, wire localisation, axillary procedure, incision, nipple procedure, smoking status, and adjuvant treatment. Ethical approval was granted by University of Dundee.
Results: The patient response rate to the study was 61.3% (57 of 93 patients), with a mean age of 59 years (range 41-75 years). The average time since surgery was 24 months (range 7-51 months). The Q-score results for each domain in the BREAST-Q are shown in Table 1.
Throughout all domains it was found that with increasing patient age, there was increased patient satisfaction (r=0.5; p=0.0005). Other variables found to be associated with increased patient satisfaction were being identified through breast screening rather than a symptomatic presentation, diagnosis of DCIS rather than invasive disease, no axillary surgery, no chemotherapy and being a non-smoker.
Conclusions: Our results demonstrate that patient reports of body image have a significant influence on overall satisfaction following surgery, with appearance of the breast in relation to shape and symmetry being important factors. Younger patients were least satisfied with their body image, which reflects the need for better management of expectations in this patient population.

Domain	Minimum Q-Score	Maximum Q-Score	Average Q-score
Satisfaction with breasts	42	100	75
Satisfaction with outcome	33	100	80
Psychosocial well-being	12	100	74
Sexual well-being	0	100	57
Physical well-being	45	100	74
Satisfaction with information	45	100	80
Satisfaction with nipples	25	100	77
Satisfaction following radiation	49	100	87

TABLE 1

Conflict of interest: No conflict of interest.

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A NOVEL STRATEGY FOR THE IMMEDIATE SALVAGE OF INFECTED BREAST IMPLANTS

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Background. Infection represents a significant cause of failure and patient anguish following skin-sparing mastectomy (SSM) with implant reconstruction. Conventionally, in order to facilitate safe re-implantation with an expander, infection necessitated ex-plantation and prolonged antibiotic administration, with sufficient duration to ensure cavity sterilisation. With this technique, skin retraction and scar formation frequently occur due to inflammation and oedema, which may perverse cosmesis. Furthermore, patients are typically left for a period of months without a breast mound, often to the detriment of body image.
We report our experiences of a novel technique for the immediate salvage of infected implant reconstructions following SSM. We describe a series of 14 patients managed using a vacuum-assisted closure device, combined with aggressive local and systemic antibiotic administration, with the aim to achieve cavity sterilisation within days, permitting single-stage re-implantation.
Materials and methods. Fourteen patients who had undergone SSM with implant/ADM reconstruction which had become infected or threatened with partial skin flap necrosis were managed via this novel technique. All patients displayed clinical signs of infection, in addition to a proven microbial infection confirmed via ultrasound-guided aspiration and microbiological culture. Following initial broad-spectrum antibiotics, subsequent therapy for local irrigation, as well as systemic administration, was guided by microbial sensitivities.
Results. After utilisation of this strategy, all but one patient received a new fixed-volume implant, without requiring a conventional two-stage expander approach. Of those, all have returned to regular follow-up and maintain excellent cosmesis, mirroring the pre-infection aesthetic outcome. One patient was unable to undergo immediate re-implantation under strict guidance from microbiology, due to growth of *mycobacterium fortuitum*.
Conclusions. Our novel technique allows for early re-implantation and restoration of the initial reconstruction, thus avoiding the consequences of a prolonged period without a prosthesis. We advocate this technique in cases of implant infection refractory to conservative management.
Conflict of interest: No conflict of interest.

Scientific Symposium
Sarcoma, incl. Retroperitoneal

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FEASIBILITY OF SURGICAL SALVAGE COMBINED WITH INTRAOPERATIVE RADIATION THERAPY (IORT) FOR RECURRENT SOFT TISSUE SARCOMA AFTER MULTIMODALITY TREATMENT

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Background: The management of local recurrences of soft tissue sarcomas (STS), after previous multimodality approach containing radiotherapy, is challenging. The aim of this study is to evaluate safety, feasibility and efficacy of surgical salvage combined with intraoperative radiation therapy (IORT) alone in patients affected by locally recurrent STS of any site.
Materials and methods: We retrospectively analyzed data of patients with local recurrences of STS after failure of previous multimodality treatment, containing preoperative radiotherapy +/- chemotherapy and surgery plus IORT with electrons, treated at our Institute.
Results: Data of 43 patients, 19 (44%) female and 24 (56%) male, treated between March 2001 and March 2018, were available. Median ECOG PS was 0. Site of primary tumor was: limb in 13 (30%) patients, trunk in 10 (23%) patients and retroperitoneal sarcomas (RPS) in 20 (47%) patients. Complete tumor resection with microscopically clear margin (R0) was possible in 20 (46 %) cases: 9 limb, 5 trunk and 6 retroperitoneal sarcoma. Twenty-one (49 %) patients had microscopically residual disease (R1): 4 limb, 5 trunk and 12 retroperitoneal sarcoma. Macroscopically residual tumor (R2) was present in 2 (5%) patients with retroperitoneal sarcoma. Multivisceral resection of contiguous organs was performed in 10 (50%) cases with retroperitoneal sarcoma. IORT with electrons was administered at a median dose of 15 Gy (range 12.5-18.0) after tumor removal. Grade III complications were reported in 3 (7%) patients: 2 bleeding and one bowel obstruction; all of which required surgical treatment. Grade II complications were reported in 9 (21%) patients, most of which were late neuropathy. There were no postoperative deaths. At a median follow-up of 36 months (range 6-162) 17 (40%) patients are alive.
Conclusion: Surgical salvage combined with re-irradiation with full dose IORT, in selected patients, seems to be safety and feasible with acceptable morbidity. Considering this unfavorable patients population, the salvage treatment proposed shows interesting results, in terms of oncologic outcome.
Conflict of interest: No conflict of interest.

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ISOLATED LIMB PERFUSION FOR UNRESECTABLE EXTREMITY CUTANEOUS SQUAMOUS CELL CARCINOMA; AN EFFECTIVE LIMB SAVING STRATEGY

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Background A small minority of patients present with locally advanced cutaneous squamous cell carcinoma (cSCC). The aim of this study was to evaluate the effectiveness of Tumor necrosis factor α (TNF) and melphalan based isolated limb perfusion (TM-ILP) as a limb saving strategy for locally advanced extremity cSCC.
Material and methods A retrospective search from prospectively maintained databases at two tertiary referral centers was performed to identify patients treated with TM-ILP for locally advanced cSSC of an extremity between 2000 and 2015.
Results A total of 30 patients treated with TM-ILP for cSCC were identified, with a median age of 71 years (36-92) and 50% female. Response could not be evaluated in 3 patients. After a median follow up of 25 months, the overall response rate was 81% (n=22), with 16 patients having a complete response (CR, 59%). A total of 7 patients developed local recurrence, with a median time to recurrence of 9 months (Interquartile Range 7 – 10). Progressive disease was observed in 5 patients (19%). Limb salvage rate was 80%. The overall 2-year survival was 67%.

Table 1
Patients, tumor, and treatment characteristics

	n (%)	Median (range)
Gender		
Male	15 (50)	
Female	15 (50)	
Age in years		71 (36-92)
Size		
<5cm	10 (38)	
>5cm	16 (62)	
Site		
Arm	3 (10)	
Hand or wrist	5 (17)	
Leg	16 (53)	
Ankle or foot	7 (20)	
Number of tumors		
Unifocal	24 (80)	
Multifocal	6 (20)	
Disease stage at presentation		
Primary	18 (60)	
Recurrent	10 (33)	
Metastatic	2 (7)	
Concurrent metastasis		
None	25 (83)	
Lymph node	3 (10)	
Distant	2 (7)	
Surgical approach		
Axillary	3 (10)	
Brachial	6 (20)	
Femoral	20 (67)	
Iliacal	1 (3)	
Doses		
TNF		2 (1-3)
Melphalan		60 (25-80)
Hospital stay in days		6 (1-72)

Conclusions TM-ILP should be considered as an option in patients with locally advanced cSCC in specialized centers, resulting in a high limb salvage rate.

Conflict of interest: No conflict of interest.

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MUTATION STRATIFICATION OF DESMOID-TYPE FIBROMATOSIS USING A RADIOGENOMICS APPROACH

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Background Radiogenomics is a promising technique, correlating quantitative imaging features with molecular characteristics. Desmoid-type fibromatosis (DTF) is a rare, borderline, soft tissue tumor that arises from musculoaponeurotic structures. The vast majority of DTF tumors harbor a specific point mutation at the CTNNB1 gene, affecting two codons in exon 3; substituting threonine at position 41 with alanine (T41A) and replacing serine at position 45 with phenylalanine (S45F). Tumors without any mutation in the CTNNB1 gene are considered to be wildtypes. This study evaluates the use of radiogenomics features extracted from T1 weighted Magnetic Resonance (T1w MR) images to predict CTNNB1 mutation status (T41A, S45F and wildtype) of DTF tumors.
Material and methods Approval from the Medical Ethics Committee of Erasmus MC in Rotterdam, the Netherlands was obtained for this study (MEC-2016-339). Cases of treatment naive extra-abdominal and abdominal wall DTF, with available digital T1w MR images, were selected from the pathology database of the Erasmus MC, Rotterdam, the Netherlands. Sanger sequencing on formalin fixed paraffin embedded material was performed to obtain CTNNB1 mutation status in case of undetermined mutation status. Tumors were semi-automatically annotated on the anonymized T1w MR images by a single clinician. Features quantifying shape, intensity and texture were extracted for a total of 424 per patient, from the images using the segmentations as region of interest. A Support Vector Machine (SVM) was trained and evaluated using these features in a 100x random split cross validation, with the training set consisting of 80% of the patients. For each mutation, an SVM was constructed using a one-vs.-all approach. Classification performance was assessed by the area under the receiver-operating-characteristic curve (AUC).
Results A total of 49 patients; 14 males and 35 females, with DTF located extra-abdominal (n=37) or in the abdominal wall (n=12) were included. Tumors harbored a T41A mutation in 21 cases, a S45F mutation in 11 cases and 17 tumors were considered to be wildtype tumors. The radiogenomics approach resulted in AUC 95% confidence intervals of [0.28, 0.61], [0.43, 0.73] and [0.61, 0.88] for classification of the T41A, S45F and wildtype mutations, respectively.
Conclusions The preliminary results of this radiogenomics model show the promising predictive value for classification of wildtype mutations, but could not differentiate between the various genetic mutations. The use of a larger, multi-center dataset with the use of additional MRI sequences and more advanced multi-class machine learning approaches could improve the radiogenomics model to develop a prediction model for DTF that can be used both in research and in clinical practice.
Conflict of interest: No conflict of interest.

Scientific Symposium
Updates in Peritoneal Surface Malignancies

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PRESSURIZED INTRAPERITONEAL AEROSOL CHEMOTHERAPY (PIPAC) BEFORE CYTOREDUCTIVE SURGERY AND HYPERTHERMIC INTRAPERITONEAL CHEMOTHERAPY FOR NONRESECTABLE PERITONEAL METASTASIS

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Background: PIPAC is a recent approach for intraperitoneal chemotherapy with promising results for patients with nonresectable peritoneal metastasis (PM). The aim of this study was to describe the clinical characteristics and extent of disease of the patients who became resectable after PIPAC and undergone cytoreductive surgery (CRS) and hyperthermic intraperitoneal chemotherapy (HIPEC).
Material and Methods: This is a retrospective analysis of prospective