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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

maintained PIPAC database of Lyon Sud university hospital. All patients diagnosed with nonresectable PM who became resectable after PIPAC were included. Outcome criteria were adverse events during PIPAC cycles according to Common Terminology Criteria for Adverse Events (CTCAE) version 4.0., Secondary CRS and HIPEC.
Results: Four hundred thirty seven PIPAC were applied in 146 consecutive patients between December 2015 and March 2018: among them 26 patients (17.8 %) underwent 76 PIPAC and were scheduled for secondary CRS and HIPEC. PM was from colorectal, gastric, ovarian, malignant mesothelioma, or other origins in 2, 13, 7, 3 and 1 patients, respectively. Nineteen (73%) female. At the time of the first PIPAC, median age was 58.6 years (32-76.3). Median PCI was 14.5 (1-39). Seven (27%) patients underwent more than 2 lines of preoperative chemotherapy. All patients had systemic chemotherapy alternating with PIPAC. Median consecutive PIPAC cycles were 3 (1-8). Overall complications occurred for 3 PIPAC (4%) and there was no major complication (CTCAE III, IV). Finally, Secondary complete CRS and HIPEC were achieved in 21 patients (14.4%) and for 5 patients CRS were not possible. Among Patients who underwent CRS and HIPEC 15 patients (76.2%) alive without recurrence, 2 patients (9.5%) alive with recurrence and 3 patients (14.3%) died.
Conclusion: Complete CRS and HIPEC can be achieved in selected patient with nonresectable PM after repeated PIPAC. Further prospective study is needed to evaluate this indication.
Conflict of interest: No conflict of interest.

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A UNICANCER PHASE III TRIAL OF HYPERTHERMIC INTRA-PERITONEAL CHEMOTHERAPY (HIPEC) FOR COLORECTAL PERITONEAL CARCINOMATOSIS. PRODIGE 7.

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Background: Promising results have been obtained during the last decade using cytoreductive surgery (CRS) plus HIPEC for selected patients with colorectal PC who are amenable to complete macroscopic resection. This is the first trial to evaluate the specific role of HIPEC, after CRS, for the treatment of PC of colorectal origin.
Methods: Prodige 7 is a randomized phase III, multicenter trial. Patients with histologically proven and isolated PC, peritoneal cancer index (PCI) $\leq$25 were eligible. Randomization (1:1) was stratified by center, complete macroscopic resection (R0/1 vs R2), and neoadjuvant systemic chemotherapy. Patients were treated with CRS plus HIPEC with oxaliplatin or CRS alone, in association with systemic chemotherapy. The primary endpoint was the overall survival (OS). Secondary endpoints were relapse-free survival (RFS) and toxicity. 264 patients were required to show a gain in median OS from 30 to 48 months (HR=0.625) with a two- sided α=0,046 and 80% power.
Results: 265 patients from 17 centers were included between February 2008 and January 2014: 132 in Arm without HIPEC and 133 in Arm with HIPEC. The median age was 60 years (range: 30-74). Baseline characteristics were well balanced. The overall post-operative mortality rate was 1.5% and was not different between the two arms. The morbidity rates did not differ statistically at 30 days. At 60 days, the grade 3-5 morbidity rate was significantly higher with HIPEC (24.1% vs. 13.6%, p=0.030). After a median follow up of 63.8 months (95% CI: 58.9-69.8), the median OS was 41.2 months (95% CI 35.1-49.7) in the non- HIPEC Arm and 41.7 months (95% CI: 36.2-52.8) in the HIPEC Arm, HR=1.00 (95% CI: 0.73- 1.37) p=0.995. The median RFS was 11.1 months (95% CI: 9-12.7) in non-HIPEC Arm and 13.1 months (95% CI: 12.1-15.7) in HIPEC Arm, HR=0.90 (95% CI: 0.69-1.90) (p=0.486), whilst the 1-year RFS rates were 46.1% in non-HIPEC Arm and 59 % in the HIPEC Arm. In sub-group analysis, OS and RFS survival rates were significantly higher among the patients with medium range PCI (>11 $\geq$15), the median OS was 32.7 months (95% CI: 23.5-38.9) in the non-HIPEC Arm and 41.6 months (95% CI: 36.1-not reach) in the HIPEC Arm, , HR=0.437 95%CI (0.21-0.90), p=0.0209
Conclusions: The therapeutic curative management of PC from colorectal cancer by CRS shows satisfactory survival results. While the addition of HIPEC with oxaliplatin does not influence the OS. Further studies are needed to determine whether HIPEC could remain beneficial for mid-range PCI patients.
Conflict of interest: No conflict of interest.

Scientific Symposium
EURECCA

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VARIABILITY IN BREAST CANCER SURGERY TRAINING ACROSS EUROPE: AN ESSO-EUSOMA INTERNATIONAL SURVEY

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Background. There is a lack of standardization of training in breast cancer surgery across Europe, with variation in training duration, oncoplastic skills acquisition and variable quality standards. Breast cancer outcomes and access to complex surgical techniques vary widely across Europe. The aim of this survey was to assess current European training variation in breast cancer surgery. This will inform the development of harmonized european structured training programs to standardized surgical management of breast cancer patients.
Material and methods. General breast surgeons, surgical oncologists, gynecologist, and plastic surgeons were invited to participate in this bespoke on-line survey. Nineteen questions were asked related to breast surgery training.
Results. A bespoke questionnaire was sent out to breast practicing surgeons in European countries. 651 surgeons (383 (59%) general surgeons, 138 (21%) gynecologists, 128 (20%) surgical oncologists, 31 (4.7%) plastic surgeons and 11 (1.6%). Response rates were highest from Germany, Spain, UK, Italy, Portugal, Sweden and Turkey.
By age, 63% responders were between 40-60 y/o and 58% were males. Four hundred and sixty-eight (72%) physicians devoted between 50% -100% to treat breast cancer. 45% worked in a community/University hospital within a Breast Unit.
Regarding the question about additional breast surgery training after the specialization, 20% had an accredited breast fellowship, 30% in a Breast Unit as a trainee, 30% in a Breast Unit as a consultant, 21% had done additional courses or a master, diploma degree and 8% had not done any additional training. For those with additional training, 70% had additional breast surgery training for more than a year and 77% had additional training in oncoplastic procedures.
Three hundred and eighty three (59%) perform breast reconstructions, with 41% performing implant-based reconstruction and 47% both implant plus autologous without microsurgery.
More than 150 cases were treated in 61% of the Breast Units, while 26% of the responders treat > 120 new primary cases per surgeon per year, 24% between 50-75 and 22% less than 50.
Conclusion. There is a great variability in breast cancer surgery training in Europe, with only 1/3 of responders having additional certified breast