and 77% ±10, respectively.
Conclusions. Near infrared hyperspectral imaging can discriminate tongue tumor tissue from healthy tongue muscle tissue in an *ex vivo* setting. Future work will firstly focus on increasing the data set to improve the results.
Conflict of interest: No conflict of interest.

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SHORT-TERM AND LONG-TERM OUTCOMES OF J-POUCH VS SIDE-TO-END VS END-TO-END COLORECTAL ANASTOMOSES AFTER TOTAL MESORECTAL EXCISION FOR RECTAL CARCINOMA: A RANDOMIZED TRIAL

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Background: randomized trial was conducted to analyze outcomes of different type colorectal anastomoses after low anterior resection for rectal carcinoma.
Method: From 2015 to 2017, patients with rectal carcinoma were randomized to J-pouch (JP), side-to-end (SE) and end-to-end (EE) anastomosis. Preventive ileo- or colostomy were formed in all the patients. Stoma closure was carried out in 2-6 month after surgery. Intraoperative peculiarities, postoperative complications rate, functional results and quality of life according to Wexner score, LARS score, FIQL were assessed in 3, 6, 12 months after surgery.
Results. 90 patients with rectal carcinoma T2-4N0-2M0 were randomized. In JP, 8 patients were withdrawn due to technical reasons, 7 converted to EE and 1 – to SE. One patient was converted from SE to EE group. As a result, 22 patients were recruited in the J-pouch group, 30 patients – in side-to-end anastomoses and 38 in end-to-end anastomoses group. Laparoscopic approach increases time of operation in comparison to open, irrespective on type of anastomosis (230 and 180 min, p=0.001). Postoperative complications developed in 13,6%, 16,7% and 34,2% in JP, SE and EE, respectively (p=0.705). Anastomosis leakage rate was similar (4,5%, 3,3% and 7,9%, accordingly, p>0.05).
Wexner, LARS score and "Coping / behavior" of FIQL at 3, 6 and 12 months showed significantly better results for J-pouch compare to SE and EE. In 12 months, there were no difference between SE and EE according to Wexner score and FIQL, but LARS score. SE showed tendency towards better results in comparison to EE.
With anorectal manometry, the maximum tolerated volume was significantly higher in 3, 6, 12 months in J-pouch vs SE and EE (160 vs 138 vs 121 (p <0.0001), 190 vs 169,5 vs 155 (p <0.0001), 223 vs 184 vs 168 ml (p <0.0001), respectively.
Conclusions. J-pouch shows better functional results in 3-12 months after surgery, albeit technically is more demanding. Side-to-end reconstruction also can be preferred.
Conflict of interest: No conflict of interest.

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WHOLE BLOOD GENE EXPRESSION PROFILING IN PATIENTS UNDERGOING COLON CANCER SURGERY IDENTIFIES DIFFERENTIAL EXPRESSION OF GENES INVOLVED IN IMMUNE SURVEILLANCE, INFLAMMATION AND CARCINOGENESIS

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Background. Surgery is included in any curative treatment strategy for solid cancers. Growing evidence supports that the stress, related to cancer surgery, might increase the risk of residual cancer in otherwise curatively treated cancer patients. The aim of this study was to identify changes in transcription of genes involved in immune surveillance, inflammation and carcinogenesis after surgery in a cohort of patients undergoing curatively intended laparoscopic colon-cancer surgery.
Material and methods. Patients undergoing elective, curatively intended laparoscopic surgery for colon cancer stage I-III UICC were included in the study. Patients followed standard of care. Whole blood gene expression profiling (WBGP) was performed on the day prior to surgery and 1, and 10-14 days after surgery. Samples were collected in Paxgene tubes and labeled cDNA was fragmented and hybridized to Affymetrix GeneChip™ 2.0. Results were corrected for multiple hypothesis testing using the false discovery rate. Pathway analysis was performed through the Molecular Signature Database. Paired fold changes of gene expression were calculated for post-operative compared to pre-operative samples.
Results. WBGP of 33,804 genes in 26 patients showed more than 6000 significantly differentially expressed genes between samples from the day prior to surgery and the day after surgery. Pathway gene enrichment analysis showed a downregulation of immunologically relevant pathways. There was a significant downregulation of genes involved in T-cell receptor signaling, antigen presentation, NK-cell activity and IFN-γ signaling after surgery. Furthermore, there was an upregulation of cytokines related to metastatic ability and growth.
Conclusion. Whole blood gene expression profiling revealed dysregulation of genes involved in immune surveillance, inflammation, and carcinogenesis after curatively intended laparoscopic colon cancer surgery.
Conflict of interest: No conflict of interest.

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RETURNS TO SURGERY AND FAILURE TO RESCUE AMONGST COLORECTAL CANCER PATIENTS FOLLOWING MAJOR RESECTIONAL PROCEDURES – THE PICTURE ACROSS ENGLAND 2009-2014

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Background. Major resectional surgery remains the mainstay of treatment for colorectal cancer (CRC). Returns to theatre after surgery, and failure to rescue (FTR) are used as indicators of quality of care. This population-based study used administrative data to quantify returns to surgery and FTR in CRC patients across England. It assesses differences between key patient groups, variation over time and across NHS trusts.
Materials & Methods. Using linked National Cancer Registration and Hospital Episode Statistics data, CRC patients undergoing a major resection, between 2010-2014, were identified. Details of returns to theatre within thirty days of resection were extracted. FTR was calculated as deaths within 30 days of primary resection in those who were returned to theatre.
Results. Of 118,714 patients undergoing a major resection, 8.2% returned to theatre at least once within 30 days. Returns were more common in patients with rectal tumours (10.9%) than patients with either colonic (7.1%) or rectosigmoid (8.2%) tumours. Returns were less common in the elderly (6.76%), and more frequent in men (9.4%).
Nationally, returns remained stable between 2010-2013 but fell to 7.4% in 2014. In contrast FTR has fallen each year from 9.5% in 2010 to 7.3% in 2014. Between Trusts, returns to theatre ranged from 2.5%-14.6% (IQR 2.2), and FTR from 0-23.3% (IQR 3.2).
Conclusions. Both returns to theatre and FTR can be estimated from national administrative data for CRC patients, and show trends in time and between patients and Trusts. This demonstrates the utility of both as indicators of quality of care in England.
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Conflict of interest: No conflict of interest.

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BARRIERS TO ORGANIZED MAMMOGRAPHY SCREENING PROGRAM IN HUNGARY: A QUESTIONNAIRE-BASED STUDY OF 3 313 WOMEN

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Background. Despite a well-organized Hungarian national invitational breast screening that is free of charge, the participation rate has never reached 70%. This study assessed the socioeconomic factors and barriers associated with low adherence via questionnaire. This report could provide information on the appropriate level of intervention for increasing screening participation in Hungary and might be useful for countries in Central-Eastern Europe with similarly low screening coverage rates.
Material and Method. Women 45-65 years of age were interviewed anonymously between 2015 and 2016 using a web-based and printed questionnaire containing 15 structured questions. The questions focused on education level, marital status, residence, participation frequency in breast screening programs, and barriers to attending screening. All answers were statistically analysed.
Results. A total of 3,313 women completed the questionnaire. The main reasons for avoiding mammography screening were work absenteeism (18.9%), fear of painful examination (18.39%), and false beliefs regarding mammography screening (14.94%). Women from the capital and provincial towns more frequently underwent mammography examinations (P = 0.038, chi-square). Compared to residents of the capital, women in rural areas reported financial (P = 0.009, chi-square) and long-distance travel difficulties as reasons for not undergoing screening (P = 9.5*10-17, chi-square).
Conclusions. Information, education, and communication are required to increase awareness among women about the utility and availability of breast screening services. Offering a patient navigator system, providing information, ensuring a day off from work, and reachable screening units for rural residents with availability of free public transportation may encourage greater mammography screening uptake.
Conflict of interest: No conflict of interest.

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NOMOGRAM PREDICTING RECURRENCES IN PREGNANCY-ASSOCIATED BREAST CANCER: ANALYSIS FROM THE FRENCH CANCER NETWORK CANCER ASSOCIé à LA GROSSESSE (CALG)

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INTRODUCTION. Pregnancy associated breast cancer (PABC) are defined as breast cancer diagnosed during pregnancy or during the year following delivery. The prediction of poor prognosis events (PPE) such as recurrence in the 36 months is a major medical challenge of management for women with PABC. The aim of this study was to build a nomogram based on selected clinical and histological variables to predict 3 year recurrences.
MATERIAL AND METHODS. This retrospective unicenter study included 96 patients with PABC from January 2002 to January 2018. A multivariate Cox analysis was performed to define risk factors to PPE and a nomogram to predict 3 year recurrences was built. The nomogram was internally validated.
RESULTS. The overall recurrence rate was 22% (21/95) and the 36 months recurrence rate was 13% (12/95). Among the 95 women, 7.3% (7/95) died. Age at diagnosis, histological type, immuno-histological class, tumor stage (TNM), node stage (TNM) were associated with 3 year recurrences in univariate analysis, and were included in the final Cox model to develop the nomogram. The predictive model had a concordance index of 0.83 (95% Confidence Interval (CI), 0.81-0.85) and 0.78 (95% CI, 0.76-0.80) before and after the 200 repetitions of bootstrap sample corrections, respectively, and showed a good calibration.
CONCLUSION: Our results support the use of the present nomogram based on five clinical and pathological characteristics to predict three year recurrences in PABC with a high concordance. External validation is required to recommend this nomogram in routine practice.
Conflict of interest: No conflict of interest.

Poster in the Spotlight
Poster in the Spotlight II

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QUALITY OF LIFE AFTER CURATIVE RESECTION FOR RECTAL CANCER IN PATIENTS TREATED WITH ADJUVANT CHEMOTHERAPY COMPARED WITH OBSERVATION: RESULTS OF THE RANDOMIZED PHASE III SCRIPT TRIAL

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Background. Adjuvant chemotherapy after preoperative treatment and curative resection for rectal cancer is the standard of care in several and European and US guidelines. However, no clear survival benefit has been shown for stage II/III rectal cancer patients, and the influence of adjuvant chemotherapy on health-related quality of life (HR-QOL) is unknown. In this study we aimed to examine the differences in HR-QOL over time between patients with rectal cancer treated with adjuvant chemotherapy and observation.
Material and methods. In the randomized controlled phase III SCRIPT trial, stage II/III rectal cancer patients that underwent preoperative (chemo)radiotherapy and curative resection were randomized to receive adjuvant capecitabine monotherapy for 24 weeks or observation only. HR-QOL assessments including the EORTC-C30 and EORTC-CR38 questionnaire, were conducted in Dutch patients at 4 pre-specified time-points: 1 month after surgery (prior to the start of ACT), and subsequently 3, 6 and 12 months after surgery. Using linear mixed models, the primary outcome tested was the difference in HR-QOL at 6 months after surgery between the adjuvant chemotherapy and the observation group. As a secondary outcome, the difference in HR-QOL at 12 months after surgery was examined. A statistically significant difference of 5 points was considered clinically relevant.
Results. HR-QOL results of 226 out of 233 patients were available. Overall quality of life expressed as the C30 Summary scale was worse at 6 months after surgery for patients treated with adjuvant chemotherapy compared to observation (mean 82.3 versus 86.9, p=0.006) but this difference was not clinically relevant. Patients treated with adjuvant chemotherapy reported clinically relevant worse physical functioning (mean 78.3 versus 87.0, p<0.001) and more complaints of fatigue and dyspnoea (respectively 35.7 versus 21.0 and 17.1 versus 6.7, p<0.001). All differences in HR-QOL were resolved at 12 months post-surgery.
Conclusions. This study shows that HR-QOL is inferior in patients treated with capecitabine monotherapy compared to observation just after completion of adjuvant chemotherapy at 6 months after surgery. However, no persistent deterioration in HR-QOL was found at 1 year after surgery. In absence of a clear survival benefit for adjuvant chemotherapy in rectal cancer patients who underwent curative resection, patient-reported outcomes as shown in this study are essential for shared-decision making between patients and doctors.
Conflict of interest: No conflict of interest.

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BASAL CELL CARCINOMA AND ELECTROCHEMOTHERAPY: THE INSPECT EXPERIENCE

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