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THE MANAGEMENT OF RECTAL CANCER IN OLDER PATIENTS IN ENGLAND - A RETROSPECTIVE POPULATION BASED STUDY A PATIENTS DIAGNOSED BETWEEN APRIL 2009 AND DECEMBER 2014

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Background This study sought to examine the use of radical treatment for rectal cancer (neoadjuvant radiotherapy and major surgical resection) and the associated outcomes across the English National Health Service (NHS) in relation to age.

Materials and Methods Data for all patients diagnosed with a first primary rectal cancer between 1st April 2009 and 31st December 2014 were included. Data from multiple sources including cancer registration data and Hospital Episode Statistics (HES) data, which were compiled as part of the Bowel Cancer Intelligence UK (BCI UK) hub, were used to obtain information about patient and tumour characteristics, treatments and outcomes. Patients were divided into three groups in relation to their age at the time of diagnosis; <70, 70-79 and ≥80. Descriptive analyses were undertaken to assess the variation in treatment and outcomes. Multilevel binary logistic regression models were used to assess the factors associated with the receipt of a major surgical resection, with patients clustered within NHS trusts.

Results. In total, 52,922 people were diagnosed with a first primary rectal cancer in England over the study period. Of these, 11,924 (22.4%) were aged 80 or over at the time of diagnosis. The proportion undergoing a major resection decreased with age, falling from 66.5% amongst those aged under 70 to 31.7% amongst those aged 80 and over. The use of neoadjuvant radiotherapy decreased with age, with 48.3% of those aged under 70 receiving pre-operative radiotherapy compared to 26.5% of those aged 80 and over. Stoma creation rates were similar across all age groups. However the proportion of patients having their stoma closed within 18 months fell with age, from 66.3% amongst those aged <70 to 32.4% amongst those aged ≥80.

Deaths within 30 days of a major surgical resection increased with age, from 1.0% to 5.5%. The rate of returns to theatre were consistent between age groups (11.0%, 11.6% and 10.2% respectively). The rate of 30-day post-operative mortality was lower amongst those who received neoadjuvant radiotherapy than those who did not across all age groups (1.6% versus 2.6%).

After adjustment for case-mix factors significant variation in operative rates for the oldest patients between NHS trusts in England remained. Results from adjusted logistic regression models showed no significant difference in 30-day post-operative mortality, length of stay or emergency readmission amongst those aged 80 and over between trusts with high and low operative rates.

Conclusions. This study demonstrates that older patients with rectal cancer were less likely than younger patients to receive potentially curative treatment. However those who did receive potentially curative treatment for rectal cancer demonstrated outcomes comparable to those of their younger counterparts, suggesting that they have been well selected.

Conflict of interest: No conflict of interest.

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COMPREHENSIVE MULTIDISCIPLINARY CARE PROGRAM FOR ELDERLY COLORECTAL CANCER PATIENTS: "FROM PREHABILITATION TO INDEPENDENCE"

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Background: We implemented a multidisciplinary pre- and rehabilitation program for elderly patients (≥75 years of age) in a single center consisting of prehabilitation, laparoscopic surgery and early rehabilitation with the intention to lower 1-year overall mortality.

Methods: In this study we compared all patients that underwent elective surgery for stage I-III colorectal cancer before and during development and after implementation of the program (2010-2011, 2012-2013 and 2014-2015) Primary endpoint was 1-year overall mortality, the secondary endpoint was complication rates.

Results: Eighty-six patients were included in the intervention cohort and compared to 63 patients in 2010-2011 and 75 patients in 2012-2013. Patient characteristics were comparable; median age in the study cohort was 80.6. Seventy-three patients (85%) participated in the program, 54 (74%) of whom followed a prehabilitation program and 46 (63%) of whom were discharged to a rehabilitation center. Laparoscopic surgery increased over the years from 70% to 83% in the study cohort. There was a trend in lower 1-year overall mortality: 11% versus 4% ($p=0.06$). There was a significant reduction in cardiac complications and the number of patients with a prolonged length of stay ($p<0.01$).

Conclusions: Multidisciplinary care for elderly colorectal cancer patients that includes prehabilitation and rehabilitation is feasible and may contribute to lower complications and reduced length of stay. This study did not show a clear benefit of implementing a comprehensive care program including both prehabilitation and rehabilitation. Dedicated multidisciplinary care seems the key attributer to favorable outcomes of CRC surgery in elderly patients.

Conflict of interest: No conflict of interest.

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THE AXILLARY SURVEY STUDY (AXISS) ON AXILLARY TREATMENT IN CLINICALLY NEGATIVE/SENTINEL NODE POSITIVE BREAST CANCER PATIENTS

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Background. Axillary lymph node dissection (ALND) is, for the time being, still the gold standard in the axillary treatment of breast cancer. Multiple studies, including the Z0011 trial, the AMAROS trial and the IBCSG 23-01 trial, have shown that in selected sentinel node positive patients the ALND could safely be omitted. However, there is some discussion internationally on whether the results of these studies should be implemented in clinical practice and to what extent. As a result, axillary treatment regimens differ internationally in patients with clinically negative/sentinel node positive breast cancer. Therefore, we have conducted this international survey to gain insight in the axillary treatment in these breast cancer patients.

Materials and methods. This international survey was distributed using an online tool between September 2016 and July 2017. The survey contains 26 questions based on various hypothetical propositions on axillary treatment plans (axillary lymph node dissection, axillary radiotherapy, no axillary treatment) in patients with clinically node negative/sentinel node positive breast cancer who are not treated with neoadjuvant chemotherapy.

Results. A total of 272 participants completed the survey. These respondents are employed in 48 different countries worldwide. Eighty percent were surgical oncologists with 67.3% having more than 10 years of experience. During axillary work-up, 90% specialists rely on axillary ultrasound of which 73% also perform fine needle aspiration of a morphologically suspicious axillary lymph node. Sixty-five percent tend to replace the ALND with axillary radiotherapy in patients with macrometastases or refrain from the ALND in micrometastatic disease. However, this decision may also be influenced by several patient and tumor characteristics, as well as a patient's preference.

Conclusion. This international survey shows the ambiguity in axillary treatment of patients with clinically negative/sentinel node positive patients worldwide. Hopefully, both future trials and trials which are currently being conducted will lead to more international consensus on the optimal axillary treatment regimens in these patients.

Conflict of interest: No conflict of interest.

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COMPLETE PATHOLOGIC RESPONSE RECTAL CANCERS (CORSiCA) EYSAC.1 STUDY

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Background. About 20% of rectal cancers who underwent neoadjuvant treatment achieve a pathological complete response in the surgical specimen (ypT0); however, about 10% of ypT0 present metastatic nodes (ypN+).

Material and methods. This international, retrospective, multicentre cohort study officially launched on December 2017 as a worldwide call, included all consecutive rectal cancers treated from 2012 to 2017 with total mesorectal (TME) or local excisions (LE) with a pathological diagnosis consistent with ypT0, independently from N status. Each center participated with a junior and a senior investigator. Patients were excluded from data analysis if follow-up was missing or less than 3 months or if presenting peri-operative mortality (Clavien 5). Outcome measures included overall (OS), disease free (DFS) and disease specific (DSS) survivals. This study was registered on ClinicalTrials.gov, number NCT03351959.

Results. Some 729 ypT0 rectal cancers from 45 European, Australian and South American centers were registered for the retrospective evaluation. 674 ypT0 patients were eligible for data analysis: 95% treated with TME and about 5% treated with LE. Among those who underwent TME, 7% were ypN+. Mean follow-up was of 31.0 months (median 26.0 months). About 58% of the patients did not complete post-operative adjuvant treatments. 46 patients (6.8%) experienced a relapse (37% local and 63% at a distant site). Mean time to relapse was of 21.1 months (media 17.5 months). Kaplan Meier survival curves comparing patients treated with LE vs TME did not document differences of statistical value for OS, DFS, DSS outcomes (Log rank test respectively p 0.7, p 0.92 and p 0.39). Opposite when survivals of patients who underwent TME were analyzed according to the nodal status, significant worse OS, DFS and DSS were documented in the ypN+ subgroup (Log rank test respectively p 0.007, p 0.05 and p 0.02).

Conclusion. Persistence of nodal metastasis in the surgical specimen is a worse prognostic factor also in ypT0 rectal cancers. However, also survivals curves following LE provided homogeneous results comparing TME. These findings support the conclusion that organ preservation with LE is a

feasible and safe option for rectal cancers who underwent complete response, given the identification of factors predicting the absence of nodal metastases in the surgical specimen.

Conflict of interest: No conflict of interest.

Scientific Symposium

Tissue Regenerative Surgery and Oncological Safety of Fat Grafting

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REOPERATIONS DUE TO INADEQUATE SURGICAL MARGINS AND RISK OF LOCAL RECURRENCE IN BREAST CANCER: COMPARISON BETWEEN CONVENTIONAL AND ONCOPLASTIC BREAST CONSERVING SURGERY

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Background: This retrospective cohort study aims to evaluate insufficient surgical margins, re-operations and local recurrences after conventional or oncoplastic breast conserving surgery (BCS).

Material and methods: We reviewed 1805 consecutive patients with invasive breast cancer (N = 1712) or ductal carcinoma in situ (N = 93) who underwent BCS at our center between January 2010 and December 2012. The patients were categorized into two groups, conventional or oncoplastic BCS. Multiple oncoplastic techniques were used: racket mastopexy (N = 184), round block (N = 171), rotation mastopexy (N = 116), superior pedicle mastopexy (N = 41), inferior pedicle mastopexy (N = 10), S-mastopexy (N = 21), J-mastopexy (N = 20), wise-amputation (N = 7), mastopexy (N = 26) and batwing mastopexy (N = 17).

Results: Conventional BCS was performed in 1192 patients (66.0%) and oncoplastic BCS in 617 (34.0%). Patients with oncoplastic BCS had more often multifocal (p < 0.001) and larger tumors (p < 0.001) with larger resection specimens (p < 0.001). The amount of resected tissue varied substantially depending on the oncoplastic technique. Patients treated with oncoplastic BCS were slightly younger (p < 0.001) and their tumors were more aggressive according to histological grade (p < 0.001) and lymph node status (p < 0.001). There was no difference in surgical margins (p = 0.671) or reoperation rates (p = 0.471), however. After oncoplastic BCS, reoperation was more often mastectomy (69.6%) compared to conventional BCS group (54.6%) but there was no statistically significant difference (p = 0.068). There was no difference in local recurrences (p = 0.174) or in overall survival (p = 0.073) during a median follow-up time of 74 months.

Conclusions: Oncoplastic BCS was used for larger, multifocal and more

		Conventional BCS N = 1192	Oncoplastic BCS N = 613	p-value
		Count (%)	Count (%)	
Tumor	Impalpable	750 (62.9%)	256 (41.8%)	<0.001
	Palpable	442 (37.1%)	357 (58.2%)	
Reoperation due to inadequate margins	No	1095 (91.9%)	557 (90.9%)	0.471
	Yes	97 (8.1%)	56 (9.1%)	
Reoperation	Re-excision	44 (45.4%)	17 (30.4%)	0.068
	Mastectomy	53 (54.6%)	39 (69.6%)	
Multifocal breast tumor	No	1068 (89.6%)	513 (83.7%)	<0.001
	Yes	124 (10.4%)	100 (16.3%)	
Histological grade	1	417 (35.0%)	176 (28.8%)	<0.001
	2	500 (42.0%)	238 (38.9%)	
	3	274 (23.0%)	198 (32.4%)	
Lymph node status	pN0i- or pN0i+	894 (75.0%)	416 (67.9%)	<0.001
	pN1mic	85 (7.1%)	36 (5.9%)	
	pN1-	213 (17.9%)	161 (26.3%)	
	Mean (SD)		Mean (SD)	
Age (years)		62 (9.85)	60 (9.47)	<0.001
Tumor size (mm)		13 (7.42)	18 (9.22)	<0.001
Specimen weight (g)		69 (48.74)	152 (235.45)	<0.001
Smallest lateral surgical margin (mm)		10.5 (5.98)	10.7 (7.27)	0.671