FINAL ID: M8

TITLE: Outcomes Following Pelvic Exenteration with en bloc Sacretomy for Recurrent Rectal Cancer

ABSTRACT BODY:

Purpose/Background: Locally recurrent rectal cancer (LRRC) remains a complex clinical challenge with a morbid disease pattern and a poor prognosis if left untreated. Pre-sacral recurrence with direct sacral invasion historically has been a contraindication to surgery due to increased rates of morbidity and mortality. Chemo-radiation can provide symptomatic relief but carries a poor 5-year survival. Studies have demonstrated that pelvic exenteration with en bloc sacrectomy (PES) can achieve R0 resection with added survival benefit. As survival rates have improved, more interest has been shown in the quality of life (QOL) following sacrectomy. The aim of this study was to provide a large single-centre cohort to compare oncological and QOL outcomes following PES for LRRC.

Methods/Interventions: A retrospective review of prospectively collected data for patients undergoing Pelvic Exenteration (PE) for LRRC at Royal Prince Alfred hospital, Sydney, between July 1994 and November 2021 was performed. Demographic, operative and histological data was collected and analysed. Quality of life data was measured with SF-36 and Fact-C questionnaires at 6 monthly intervals

Results/Outcomes: 305 patients underwent PE for LRRC (120 PE, 185 PES) of those undergoing PES 65 had high sacral transection above S2/3 junction and 119 below. Patients undergoing PES were more likely to need urological reconstruction (33.3% vs 64.3% p<0.001), VRAM flap repair (3.4% vs 19.5% p<0.001) and major nerve resection (23.5% vs 42.2% p<0.001) as part of their procedure. Similarly the PES cohort had longer operative time (8.7h vs 10.5h p<0.001) greater blood loss (2L vs 3.8L P=0.001) and transfusion requirements (61.5% vs 89.6% p<0.001). PES patients experienced more major post-operative complications (44.2% vs 63.2% p=0.001). R0 rates were high in both groups (72.5% vs 80% p=0.128), interestingly despite the higher R0 in PES, this cohort experienced poorer Median and 5 year overall survival (73mths vs 47mths p=0.059 and 51.9% vs 39.6% respectively). Multivariate analysis found R0 the greatest predictor of survival (p=0.007)

QOL data did not demonstrate significant difference between PE and PES patients across physical component (p=0.346), mental component (p=0.787) and FACT-C (p=0.679) scores at 24 month follow up

Conclusions/Discussion: Patients undergoing PE and PES for LRRC experience similar rates of R0 resection and QOL outcomes. As R0 remains the most important predictor of survival the requirement of sacral resection should not be seen as a barrier to surgery. In subspecialist multidisciplinary units excellent R0 rates are achievable without a significantly increased burden on QOL

(no table selected)

(No Image Selected)

AUTHORS (FIRST NAME, LAST NAME): J. Waller[3], C. Van Kessel[3], P. Lee[2], K. Austin[2], D. Steffens[3], M. Solomon[1]

AUTHORS/INSTITUTIONS: M. Solomon, The University of Sydney Faculty of Medicine and Health, Sydney, New South Wales, AUSTRALIA|P. Lee, K. Austin, Royal Prince Alfred Hospital, Camperdown, New South Wales, AUSTRALIA|J. Waller, C. Van Kessel, D. Steffens, The University of Sydney Surgical Outcomes Research Centre, Camperdown, New South Wales, AUSTRALIA|

FINAL ID: M9

TITLE: Current Rectal Cancer Survivorship Care: Unmet Patient Needs and Fragmented Specialist and Family Physician Care

ABSTRACT BODY:

Purpose/Background: With advances in rectal cancer management and improved prognosis, there is a growing number of rectal cancer survivors with unique needs. We hypothesize that the current rectal cancer survivorship care is limited in terms of communication among healthcare professionals, access to family physicians (FP), and targeted, dedicated care.

Methods/Interventions: Part 1: A retrospective cohort study was performed on rectal cancer survivors who underwent proctectomy and completed all adjuvant treatment from 2005-2021 in a tertiary-care practice in Canada. The main outcome was survivorship-related ED visits, defined as those related to bowel, sexual, and urinary dysfunction, chemotherapy-related complications, and stoma/wound-related complications not requiring an admission. Part 2: A qualitative study was performed with 5 colorectal surgeons, 2 medical oncologists, 1 radiation oncologist, and 4 FPs with rectal cancer patients in their practice. Semi-structured interviews were conducted to explore rectal cancer survivors' needs and their existing survivorship care. Grounded theory was used for thematic analysis.

Results/Outcomes: Part 1: From 2006 to 2021, 441 rectal cancer survivors completed treatment. Median age was 72 (IQR 63-82) years, 189 (42.9%) were female, and median Charlson Comorbidity Index was 5 (IQR 4-6). There were 156 (35.4%) patients who did not have a FP. In total, there were 673 ED visits for all individuals, of which 60 visits were related to survivorship-related unmet needs. The most common reason for ED visit was bowel dysfunction (n=36, median 187, IQR 44-1023 days from end of treatment), followed by chemotherapy-related neuropathy (n=14, median 361, IQR 93-1334 days) and ostomy/wound-related complications (n=9, median 19, IQR 11-71 days). On Cox proportional hazards analysis, lack of access to a FP was associated with a higher probability of having survivorship-related ED visits (p=0.003, Figure 1). Part 2: Interviews of specialists and FPs revealed 5 overarching themes: (1) Several unmet needs specific to rectal cancer survivors exist; (2) Specialists experience lack of resources and support in providing ancillary care to rectal cancer survivors; (3) FPs feel limited in providing survivorship-related care due to lack of formal training; (4) There is no formal process to transition care from specialists to FPs during the survivorship phase; (5) A survivorship care document and dedicated nursing support have the potential to improve communication among specialists, FPs, and patients.

Conclusions/Discussion: Existing rectal cancer survivorship care is fragmented. Lack of access to FPs or their limited involvement in survivorship care likely contributes to unmet needs. Rectal cancer survivors could benefit from improved, individualized follow-up, coordinated among specialists and FPs.

(no table selected)

Figure 1: Survivorship-related ED Visits over time

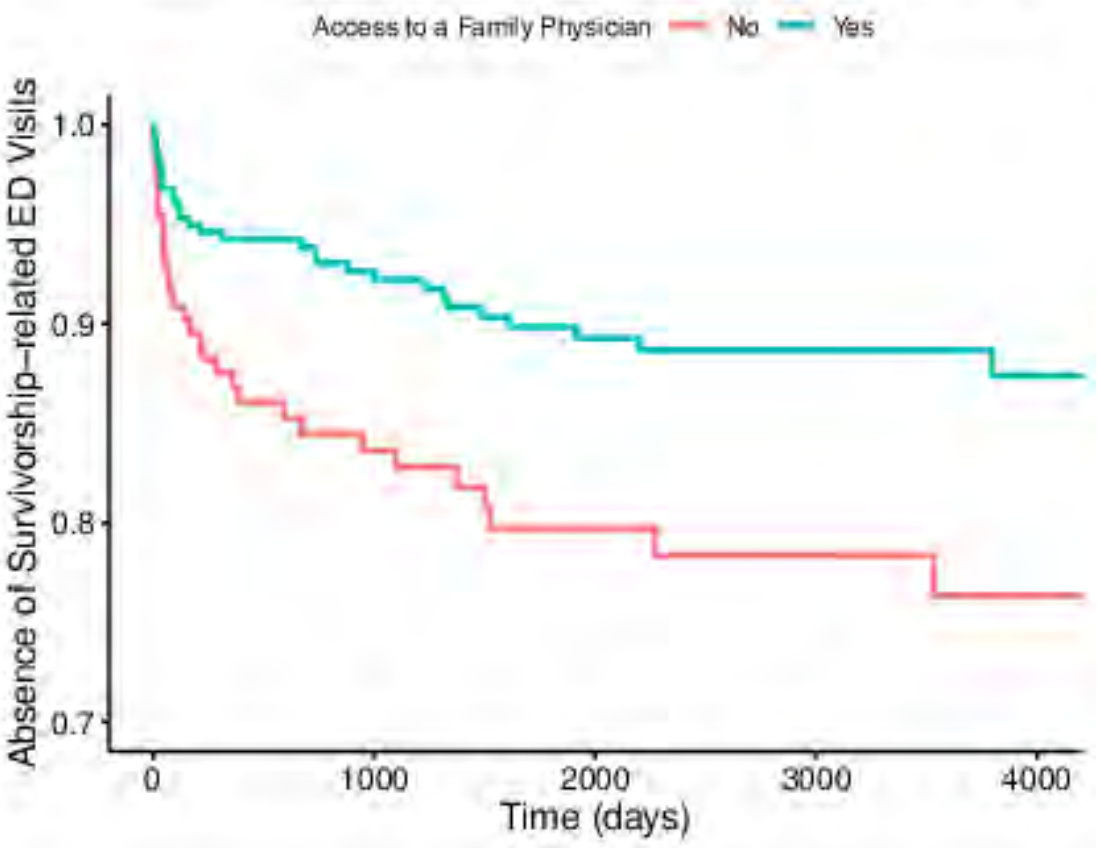

IMAGE CAPTION:

AUTHORS (FIRST NAME, LAST NAME): J. Moon[1], E. Salama[2], A. Wang[1], M. Arsenault[1], N. Leon[1], F. Rajabiyazdi[3], C. Loiselle[1], M. Boutros[1]

AUTHORS/INSTITUTIONS: J. Moon, A. Wang, M. Arsenault, N. Leon, C. Loiselle, M. Boutros, McGill University, Montreal, Quebec, CANADA|E. Salama, Cleveland Clinic Florida, Weston, Florida, UNITED STATES|F. Rajabiyazdi, Carleton University, Ottawa, Ontario, CANADA|

Found 7 Records

FINAL ID: M10

TITLE: Endoscopic Predictors of Residual Tumor After Total Neoadjuvant Therapy: A Post Hoc Analysis from the Organ Preservation in Rectal Adenocarcinoma (OPRA) Trial

ABSTRACT BODY:

Purpose/Background: Selecting appropriate candidates with locally advanced rectal cancer (LARC) for non-operative management (NOM) relies on endoscopic, radiologic and clinical restaging several weeks after completion of neoadjuvant therapy. While some patients may have an obvious tumor at endoscopic restaging, others have subtle mucosal abnormalities that may indicate persistent disease. Using prospectively collected and standardized tumor assessment forms (TAFs), we analyzed individual endoscopic characteristics to determine which features best predicted residual tumor.

Methods/Interventions: We performed a post hoc analysis of the OPRA trial, which randomized patients with stage II/III rectal adenocarcinoma to receive induction or consolidation total neoadjuvant therapy (TNT). Surgeons completed a restaging TAF by selecting from a list of endoscopic characteristics corresponding to complete (cCr), near complete (nCr) and incomplete (iCr) clinical response. In the absence of other concerning features, patients with a cCr or nCR proceeded with NOM. Outcomes were measured two years after initial restaging with patients divided into two categories. The tumor free (TF) group included patients with a sustained cCR or a pathologic complete response. The residual tumor (RT) group consisted of patients with an iCR and those who experienced local regrowth within two years of restaging. A backwards-selected multivariate logistic regression model adjusting for nodal disease, TNT treatment arm and individual endoscopic features was built to identify independent predictors of RT.

Results/Outcomes: 258 patients underwent restaging at a median of 7.7 weeks after TNT; 126 (48.8%) of them had RT. Patients with nodal disease at diagnosis (80% vs. 64%; p=0.004) and who received induction TNT (56% vs. 40%; p=0.013) were more likely to have RT. Endoscopic features associated with RT included several characteristics corresponding to a nCR, such as ulcer (21% vs. 4.5%; p<0.001), nodularity (25% vs. 11%; p=0.006) and irregular mucosa (26% vs. 8.3%; p<0.001). On multivariate regression analysis, visible tumor (OR 21.8; 95%CI 8.9-62.3) and ulcer (OR 6.62; 95%CI 2.54-19.7) remained the strongest predictors of RT. Other independent predictors included irregular mucosa (OR 3.46; 95%CI 1.51-8.25), nodularity (OR 2.62; 95%CI 1.19-5.89), nodal disease at diagnosis (OR 2.14; 95%CI 1.08-4.35) and induction TNT (OR 1.91, 95%CI 1.05-3.52).

Conclusions/Discussion: Using prospectively collected and standardized endoscopic data, this study demonstrated that LARC patients with ulcer, nodularity, irregular mucosa and visible tumor at restaging had higher odds of harboring residual disease. Understanding the negative prognostic implications of these characteristics will enable surgeons to better select candidates for NOM.

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Multivariate Logistic Regression Analysis: Factors Associated with Residual Tumor

	OR	95% CI	P value
cN positive	2.14	1.08-4.35	***0.029***
Induction TNT	1.91	1.05-3.52	***0.034***
Ulcer	6.62	2.54-19.7	***<0.001***
Nodularity	2.62	1.19-5.89	***0.017***
Irregular mucosa	3.46	1.51-8.25	***0.003***
Visible tumor	21.8	8.9-62.3	***<0.001***

Table 1: Using covariates from a univariate model, a backwards-selected multivariable logistic regression analysis was performed. Data reported as Odds Ratio (OR) with 95% Confidence Intervals (95% CI). cN, clinical node status; TNT, total neoadjuvant therapy.

IMAGE CAPTION:

AUTHORS (FIRST NAME, LAST NAME): H. Williams[1], H. Thompson[1], S. Lin[2], F. S. Verheij[1], L. Qin[2], J. Garcia-Aguilar[1]

AUTHORS/INSTITUTIONS: H. Williams, H. Thompson, F.S. Verheij, J. Garcia-Aguilar, Memorial Sloan Kettering Cancer Center Department of Surgery, New York, New York, UNITED STATES|S. Lin, L. Qin, Memorial Sloan Kettering Cancer Center Department of Epidemiology & Biostatistics, New York, New York, UNITED STATES|

FINAL ID: M11

TITLE: Local Recurrence-free Survival after TaTME: A Canadian Institutional Experience

ABSTRACT BODY:

Purpose/Background: Transanal total mesorectal excision (TaTME) is a novel surgical treatment for mid to low rectal cancers. Norwegian population data has raised concerns about local recurrence in patients treated with TaTME. Our objective was to analyse local and distant recurrence-free survival in patients treated by TaTME for rectal cancer at a high-volume academic tertiary center in Canada.

Methods/Interventions: This is a retrospective study utilizing a prospectively maintained institutional TaTME surgery database. All patients treated by TaTME for rectal adenocarcinoma were included. Patient demographics, treatment and outcomes data were analysed. Local recurrence, disease free and overall survival were analysed using Kaplan Meier analysis.

Results/Outcomes: Between 2014 and 2022, 304 patients were treated by TaTME at St. Paul's Hospital. Of these, 280 patients met inclusion criteria. Median age was 62 (range 24-90) years and 68% of patients were male. The median BMI was 26 (range 17-48) kg/m^2 with 27% having a BMI ≥ 30 kg/m^2. The median tumour height was 6 cm from the anal verge. Most patients underwent neoadjuvant therapy prior to surgery (69%, 192/280). The majority (271/280) of patients had restorative resection with a conversion rate from laparoscopic to open of 6.8%. Optimal TME (negative distal/circumferential margin, complete or near-complete TME) was demonstrated on pathology in 94% (252/269). Median follow-up was 28 months (range 0-90) and 76% (212/280) achieved reestablishment of GI continuity to date. Crude local recurrence rate was 5.7%, (16/280) with a distant recurrence rate of 11.1% (31/280).

Conclusions/Discussion: Recent European data has challenged the presumed oncologic safety of TaTME. However, the learning curve for this procedure is challenging and poor outcomes are associated with low volume. This is the largest single-centre study to date and confirms an acceptable local recurrence rate consistent with the current standard.

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AUTHORS (FIRST NAME, LAST NAME): O. Hershorn[1], A. Ghuman[1], A. A. Karimuddin[1], P. Phang[1], M. Raval[1], C. Brown[1]

AUTHORS/INSTITUTIONS: O. Hershorn, A. Ghuman, A.A. Karimuddin, P. Phang, M. Raval, C. Brown, The University of British Columbia Faculty of Medicine, Vancouver, British Columbia, CANADA|

FINAL ID: M12

TITLE: Longitudinal Analysis of Local Recurrence and Survival After Transanal Abdominal Transanal Radical Proctosigmoidectomy (TATA) for Low Rectal Cancer

ABSTRACT BODY:

Purpose/Background: The TATA was developed for sphincter preservation in very low rectal cancers. Since inception, it served as a catalyst for disruptive transanal procedures and platforms. To date, benefits of the TATA for short-term outcomes, function, and quality of life have been well demonstrated. With the controversy over safety with high recurrence rates in other sphincter preserving techniques, further study of the TATA long-term oncologic outcomes is warranted. Our goal is to evaluate the long-term recurrence and survival outcomes after TATA for low rectal cancers. Our hypothesis is that long-term data will show the TATA consistently yields superior clinical and oncologic outcomes for the most difficult rectal cancer resections.

Methods/Interventions: A prospective cancer registry from a single tertiary referral center was reviewed for patients with a primary rectal adenocarcinoma who had a TATA between 10/1/98-10/1/2020 (minimum 2 years follow-up). Patients with low cancers (within 5cm of the anorectal ring [ARR]) who received neoadjuvant chemoradiation (NACRT) were included. Patient and cancer demographics and clinical and pathological outcomes were evaluated by univariate analysis. Kaplan-Meier analysis assessed the recurrence and survival data. The main outcome measure was 5-year local recurrence (LR). Secondary outcomes were disease-free survival (DFS), overall survival (OS), and overall morbidity and mortality.

Results/Outcomes: 506 patients had a TATA during the study period; 227 met inclusion criteria and were evaluated. Patients were 70% male (n=160) and a mean 58.5 years old (SD 11.5). Mean tumor distance from the ARR was 1.2 cm (SD 1.1). 73.8% (n=135) patients had a good response to NACRT (Mandard Tumor Regression Grade [TRG] 1 or 2), while 26.2% (n=48) had a poor response (TRG 3, 4, or 5). Cases were primarily laparoscopic (74.4%) or robotic (13.2%). There were no intraoperative conversions. All distal and proximal margins were negative; 1 (0.4%) had a positive radial margin. The total mesorectal excision was complete in 98%. The mean length of stay was 5 (SD 2.8) days. The 30-day morbidity rate was 7.5% (n=17), with 1 no mortalities. After a median follow-up of 65.6 (IQR 42.1-103.8) months, 6 patients (2.6%) developed LR (median time to LR 32.9 months) and 42 (18.5%) patients developed distant metastasis (median time to Mets 22.5 months). The 5-year OS rate was 82.8% and 5-year DFS was 79.3%. There were no development of carcinomatosis or multi focal pelvic recurrence.

Conclusions/Discussion: The TATA demonstrated excellent long-term locoregional control and survival in very low rectal cancers. As controversy surrounds other sphincter-preserving techniques, the TATA superior outcomes are durable over time. With this validation a standardized training course, to expand sphincter preservation surgery with good oncologic outcomes, merits consideration.

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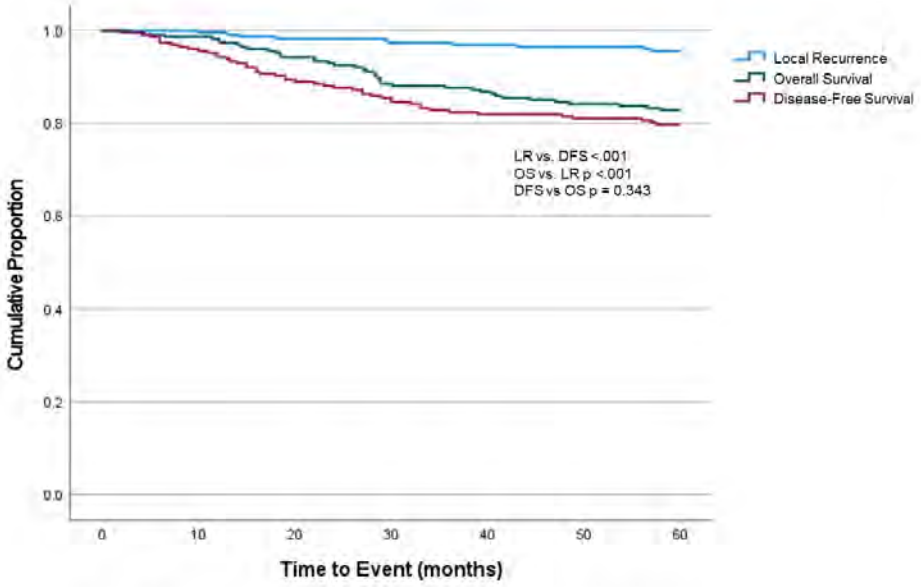

Figure 1: 5-year local recurrence (LR), disease-free survival (DFS), and overall survival (OS) for rectal cancer after TATA.

IMAGE CAPTION:

AUTHORS (FIRST NAME, LAST NAME): J. Marks[1], H. Saidi[1], T. Reif De Paula[1], T. Ikner[1], H. Schoonyoung[1], D. Keller[1]

AUTHORS/INSTITUTIONS: J. Marks, H. Saidi, T. Reif De Paula, T. Ikner, H. Schoonyoung, D. Keller, Lankenau Medical Center, Wynnewood, Pennsylvania, UNITED STATES|

FINAL ID: M13

TITLE: Long-term Complications after Laparoscopic and Robotic Total Mesorectal Excision with Lateral Pelvic Node Dissection in Locally Advanced Rectal Cancer

ABSTRACT BODY:

Purpose/Background: Serious postoperative complications that arise when performing lateral pelvic node dissection (LPND) have been the main cause hesitating to adopt this procedure. However, little is known about relative risk of long-term complications after LPND compared to total mesorectal excision (TME) in locally advanced rectal cancer. We investigated the incidence of long-term complications after preoperative CRT, followed by curative TME with LPND in locally advanced rectal cancer.

Methods/Interventions: Patients undergoing TME with or without LPND after preoperative CRT for rectal cancer between 2011 and 2019 were analyzed. All operations were performed by laparoscopic or robotic approach. Long-term complications were defined as an event that appears after ≥ 90 days after surgery.

Results/Outcomes: 406 patients undergoing TME (TME group) and 165 patients undergoing TME with LPND (LPND group) were evaluated. Chronic complication rate was 14.3% in the TME group and most common complication was chronic anastomotic leakage, similar rate to the LPND group (12.3% vs. 11.5%). In addition, permanent stoma formation was also similar between the two groups (2.8% vs. 4.8%). 8.4% of patients still had chronic sinus in the TME group. Chronic complication rate was 36.6% in the LPND group: lymphocele was most common as 17.7% and 7.9% of patients had urinary complications due to urinary stricture and pelvic sidewall adhesion. The readmission rate for treating chronic complications was 20.7%. Among 29 patients with lymphocele, 13 patients (41%) experienced spontaneous absorption and 10 patients (34.5%) required surgical drainage, PCD insertion, or antibiotics use. Binominal logistic regression showed pathologic LPN metastases (odds ratio, 2.661; 95% confidence interval; 1.317-5.378; P=0.006) and a higher number of harvested LPN (odds ratio, 1.127; 95% confidence interval; 1.046-1.213; P=0.002) to be significantly associated with chronic complications after LPND. At the last follow-up [median follow-up of 43 months (range, 4.9-84.5 months)], 15.9% of patients still had unresolved chronic complications.

Conclusions/Discussion: Patients undergoing TME with LPND experienced higher chronic complications than those undergoing TME alone. Therefore, we should work to reduce the unique complications including lymphocele and urinary problems after TME with LPND.

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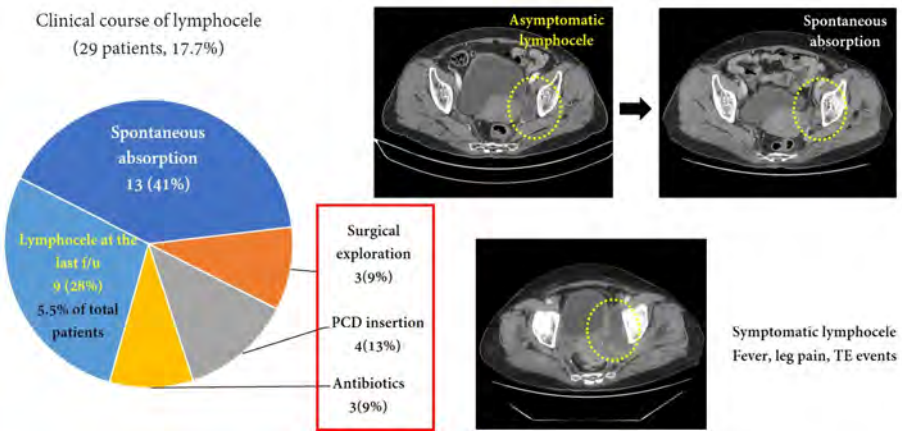
Clinical course of lymphocele
(29 patients, 17.7%)
Spontaneous absorption 13 (41%)
Lymphocele at the last f/u 9 (28%) 5.5% of total patients
Surgical exploration 3(9%)
PCD insertion 4(13%)
Antibiotics 3(9%)
Asymptomatic lymphocele
Spontaneous absorption
Symptomatic lymphocele
Fever, leg pain, TE events

IMAGE CAPTION:

AUTHORS (FIRST NAME, LAST NAME): H. Kim[1], G. Choi[1], S. Song[1]

AUTHORS/INSTITUTIONS: H. Kim, G. Choi, S. Song, Kyungpook National University Hospital, Daegu, KOREA (THE REPUBLIC OF)|

FINAL ID: M14

TITLE: Anal Adenocarcinoma Treated in the Era of Total Neoadjuvant Therapy and Non-Operative Management

ABSTRACT BODY:

Purpose/Background: Anal adenocarcinoma is rare and represents a surgical and oncological treatment challenge. Whether the approach of neoadjuvant treatment in the form of Total Neoadjuvant Treatment (TNT) followed by “Watch & Wait” (W&W) can be effectively used is unclear. We analyzed the patterns of care and outcomes based on the treatment strategy.

Methods/Interventions: Patients treated with anal adenocarcinoma (2004-2019) at our institution were retrospectively reviewed from a prospectively maintained database. We analyzed data regarding patient and disease characteristics, and outcomes of each treatment approach.

Results/Outcomes: We identified a study population of 176 patients with anal adenocarcinoma. Ninety-four patients were included in the final analysis. Most patients presented with Stage II disease (n = 37, 39%), followed by Stage III (n = 32, 34%) and Stage I (n = 17, 18%). Fourteen patients presented with Stage IV disease and were excluded. Fifty-six patients (60%) were treated with TNT; 32 (57%) of which continued in W&W after achieving a clinical complete response and 24 (43%) proceeded with surgery. Thirty-eight (40%) had surgery upfront. Patients who underwent TNT followed by surgery were younger (mean age 59, Vs. 70 (W&W), 68 (upfront surgery), p = 0.009), more often had history of IBD (28%, vs. 4% (W&W), 8% (upfront surgery) p = 0.014) and predominantly had stage III at diagnosis (55%, 41% (W&W), 16% (upfront surgery), p = 0.008). Patients who underwent upfront surgery commonly presented with Stage I (34%, vs. 18% overall, P = 0.002) or stage II disease (45%). The median length of follow-up was 88 months (IQR 39-159 months). Five patients (16%) experienced local regrowth after initial W&W approach and required local excision (n = 1) or APR (n = 4). Patients who received TNT followed by surgery more often underwent APR as most definitive surgery, compared to patients in the upfront surgery group (90% Vs. 68%, p = 0.039). Patients who received TNT followed by surgery were found to have pathologic complete response rate in 24% of cases (n = 7). Distant-metastasis-free survival at 3 years was 74% in the upfront surgery group; 75% in TNT followed by surgery group; and 58% in TNT followed by W&W. Locoregional recurrence rate of 29.6% was identified in the W&W group.

Conclusions/Discussion: The treatment of anal adenocarcinoma is evolving. Our results suggest that for locally advanced anal adenocarcinoma, TNT with attempt at W&W can be considered in highly selected patients, with acceptable local regrowth rates.

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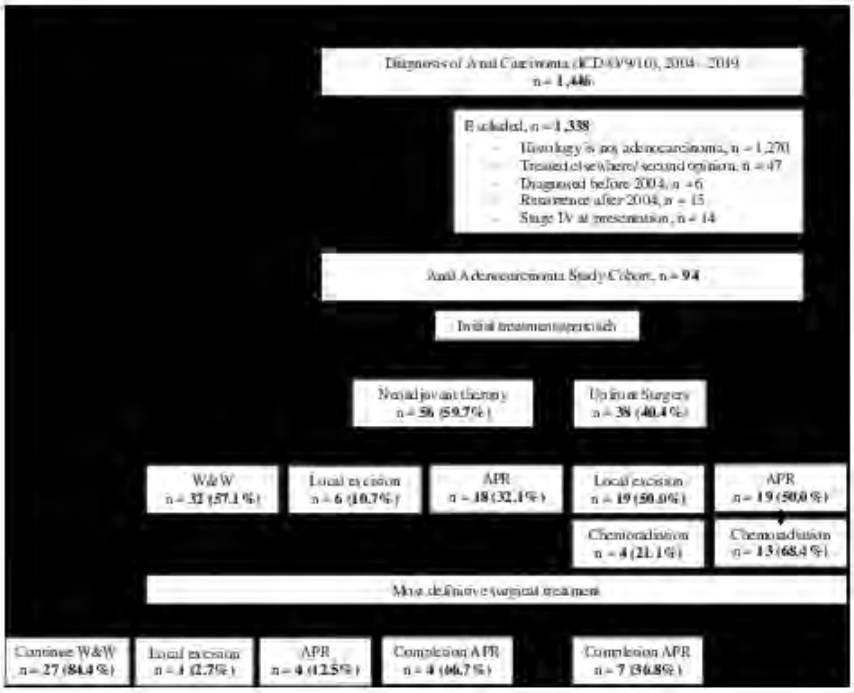

Figure 1. Treatment Allocation Flow Diagram.

IMAGE CAPTION: Figure 1. Treatment Allocation Flow Diagram.

AUTHORS (FIRST NAME, LAST NAME): Y. Feferman[1], S. Gebran[1], J. Yuval[1], J. J. Smith[1], I. Wei[1], M. Weiser[1], J. Garcia-Aguilar[1], E. Pappou[1]

AUTHORS/INSTITUTIONS: Y. Feferman, S. Gebran, J. Yuval, J.J. Smith, I. Wei, M. Weiser, J. Garcia-Aguilar, E. Pappou, Memorial Sloan Kettering Cancer Center, New York, New York, UNITED STATES|