# Cancer Treatment 2020 - Outcomes post induction chemotherapy followed by chemoradiation in T4b non-metastatic primary rectal cancer

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## Abstract :

**Background:** Role of upfront chemotherapy in locally advanced rectal cancer invading into adjacent structures has not yet been defined. Beside risk of local failure, this entity has high risk for distant metastasis as well.

**Patients and methods:** Patients with newly diagnosed T4b non-metastatic rectal cancer treated between January 2011 and December 2017 were retrospectively reviewed from a single institution. Primary end point was R0 resection rate.

**Results:** Thirty eight out of 41 patients were eligible for our study. Median age: 52.5 years (range 29-77). Twenty were males (52.6%). Median distance from anal verge: 6 cm (1.8-15). Median follow up: 28 (20.5-52.2) and 41 months (26.2-63.7) in entire population and R0 resected group, respectively. Oxaliplatin- and irinotecan-based doublet chemotherapy was administered in 35 (92.1%) and 3(7.9%), respectively, (median 7 cycles). All 24 resected patients had R0 resection (63.1%). All resected patients except one case with ulcerative colitis received fluoropyrimidine-based chemoradiation prior to surgery (median radiation dose: 5040 cGY). Standard TME surgery was carried out in 10 patients (26.3%), extended TME surgery was done in 8 patients (21 %), Six patients required pelvic exenteration (15.7%). Complete pathological response was reported in 3 patients (12.5%). Although 17 patients (70.8%) had advanced cN2 disease, 21(87.5%) patients turned to be ypN negative. Three-year progression- free and overall survival in entire population were 52.2% and 78.6%, respectively. For R0 resected group, these figures were 82.2% and 100 %. Distant metastasis rate and and local failure rate in R0 resected group were 4.1 % and 8.3%, respectively.

**Conclusions:** Induction chemotherapy approach appears promising strategy in this setting. Compared to limited historical control data, we achieved similar R0 resection rate but by far we noted a substantial reduction in distant metastasis rate in resected group. As such this strategy warrants further prospective evaluation in clinical trials.

**Biography:**

I have obtained MBBS degree in 2000 from King Saud university-Medical college. I did residency training of 4 years duration in internal medicine and completed 2 years of fellowship training in medical oncology at King Faisal Specialist Hospital and Research centre(KFSHRC). Saudi Arabia-Riyadh.I joined clinical fellowship in medical oncology at princess Margert hospital-Toronto-Canada completed in December 2010.Since then I joined medical oncology section as a consultant KFSHRC.+

Colorectal malignant growth is one of the most well-known malignancies all through the world, including People's Republic of China.1 Up to now, medical procedure remains the essential radical treatment for colon malignancy (CC).2 Thus, resection radicality is one of the most significant indicators for neighborhood repeat and by and large endurance (OS).3 About 10%–

15% of the CC patients are determined to have privately progressed disease.4 To achieve a R0 resection, which is characterized as a resection with infinitesimally contrary edges, the en-coalition multivisceral resection (MVR) including a halfway or complete expulsion of the organs sticking to the essential tumor is acted in these patients.5 This broad surgery prompts difficulties with an all out rate as high as 20.3%.6 The postoperative complexities would likewise impact the clinical outcome.7 Therefore, there is a need to improve resection radicality and decrease the medical procedure related inconveniences at the same time, so as to enhance the guess of privately propelled CC. In addition, 5% of the CC patients present with a locally unresectable illness, including tumors fixed to basic structures, and organs not amiable or suitable for radical resection.8 Enhancing resectability could likewise improve the endurance of patients with privately propelled CC, particularly those with unresectable malady.

Like CC, privately progressed rectal disease (RC) can likewise attack the nearby structures.9 Neoadjuvant chemoradiotherapy (NACRT) has been demonstrated to improve the resection radicality and endurance as well as the postsurgical life nature of privately progressed RC, particularly in the period of force adjusted radiotherapy (IMRT).10,11 So, NACRT followed by medical procedure is currently proposed by the National Comprehensive Cancer Network as the standard preoperative treatment for these patients.12 The most well-known (57.0%) pathologic conclusion of RC is the tolerably separated adenomatous carcinoma, which additionally possesses the lion's share (72.0%) of CC.13,14 It isn't difficult to conjecture that clinical result of patients with CC may likewise be enhanced through NACRT. As a matter of fact, preceding this investigation, we had announced the viability and security of NACRT in 21 patients with unresectable sigmoid CC.15 Hence, this forthcoming observational examination planned to additionally approve the aftereffects of our past work in an extended size of unresectable CC patients.

Patients with pathologically analyzed and beforehand untreated CC in our emergency clinic from November 1, 2010 to March 31, 2017 were at first thought of. A patient would be continuously selected into this examination and tentatively watched if his/her tumor was viewed as unresectable and needing NACRT, through the multidisciplinary group interview. The reasons of unresectability fundamentally incorporated the accompanying: 1) preoperative imaging assessments demonstrated that the tumor widely attacked into the neighboring organs, for example, the bladder, ureter, small digestive system, pancreas or extraordinary vessels, to make the accomplishment of a spotless radical edge unimaginable and 2) radical resection was considered outlandish after exploratory laparotomy. Patients with far off metastases were likewise qualified in light of the fact that the essential target of this investigation was to evaluate the neighborhood reaction of the tumor. Be that as it may, the patients with the accompanying models would be avoided: 1) age <18 or >75 years; 2) Karnofsky execution score <70; 3) extreme hematopoietic, heart, lung, liver or kidney dysfunctions, which made the patients unacceptable for medical procedure or

NACRT; and 4) earlier history of different malignancies. This investigation was affirmed by the Institutional Review Board of Sun Yat-sen University Cancer Center. All the patients enlisted marked educated assent structure before treatment. Until March 31, 2017, a sum of 60 patients with unresectable privately propelled CC were treated with NACRT before medical procedure. The pretreatment pathoclinical qualities of the patients are appeared in Table 1. The middle age at determination was 56 (territory, 29–74) years. The most well-known site of tumor in this examination was likewise sigmoid (71.7%). The most well-known pathologic sort was tolerably separated adenomatous carcinoma (51.7%). The most widely recognized T stage and N stage were T4ab (61.7%) and N2 (61.6%), individually. Among the 60 patients, just 1 patient (1.6%) had liver metastasis at beginning determination. The main 3 regular explanations behind unresectability were association of bladder (45.0%), extraordinary vessels (18.3%) and small digestive system (15.0%).

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