

Rectal Cancer Watch and Wait Approach: A Promising Rectal Salvaging Strategy

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1. Abstract

1.1. Introduction: Colorectal cancer is the third most common cancer worldwide, with rectal cancer being the 10th fatal cancer. The current recommended treatment for locally-advanced rectal cancer is neoadjuvant chemoradiotherapy followed by surgery, with surgical resection carrying significant postoperative morbidity (intestinal, sexual, urinary) and a negative effect on the quality of life. A newly developed strategy is ‘watch and wait approach’ that renounces surgical resection in the setting of complete clinical response to neoadjuvant chemoradiotherapy only with regular follow ups.

1.2. Methods: Our first experience in King Hamad University Hospital was for a sixty-four years old Bahraini male who was diagnosed with rectal adenocarcinoma and managed initially with neoadjuvant chemoradiotherapy, as the patient showed complete clinical response after neoadjuvant chemoradiotherapy, he was managed with ‘watch and wait approach’ that required strict follow up every 3 months with repeated clinical examination, radiological and endoscopic investigations.

1.3. Results: After a follow up period of 22 months’ post neoadjuvant chemoradiotherapy, the patient did not show any signs of recurrence or metastasis.

1.4. Conclusion: The ‘watch and wait approach’ in patient with complete clinical response post neoadjuvant therapy can be a good treatment option in selected patients with positive impact on patient’s quality of life and with far less morbidities and complications compared to surgical resections.

2. Introduction

Rectal cancer is one of the most common malignancies worldwide, <http://acmcaseports.com>

and its treatment remains challenging. The current standard treatment for locally-advanced rectal cancer is neoadjuvant chemoradiotherapy followed by surgical resection [1], and although it has a good outcome, it has been associated with increased risk of complications, long-term morbidities and impaired quality of life [2].

In the early 2000s, reports showed that some patients who received neoadjuvant chemoradiotherapy without invasive surgery showed clinical complete response [3], which led to the development of the “watch-and-wait” approach. This strategy showed almost similar survival results with better functional outcome.

We present a 64-year-old Bahraini male who was diagnosed with locally advanced rectal cancer and was managed with “watch-and-wait” approach.

3. Case Presentation

A sixty-four-year-old male presented to the outpatient clinic with the complaint of constipation and bleeding. Upon clinical examination, his abdominal exam was unremarkable, whereas the digital rectal exam revealed a palpable mass in the rectum. Patient history showed that he is diagnosed with diabetes mellitus and hypertension.

Colonoscopy was performed which showed a large cauliflower fungating lesion ten centimeters from the anal verge with a biopsy taken that turned to be moderately differentiated adenocarcinoma. The patient was further investigated with CT abdomen and pelvis (Figure 1) with MRI pelvis (Figure 2), that showed the mass near the anorectal angle with suspected invasion to the posterior portion of the prostate and a 0.4 cm liver lesion in segment IV A. The CT chest showed bilateral calcified pulmonary nodules (ranging from 2-5 mm). The liver lesion was further investigated with an MRI liver which showed a simple cyst.



Figure 1: CT abdomen and pelvis with contrast with coronal (left) and axial (right) views 1.7 cm lower rectal mass with perirectal fat invasion

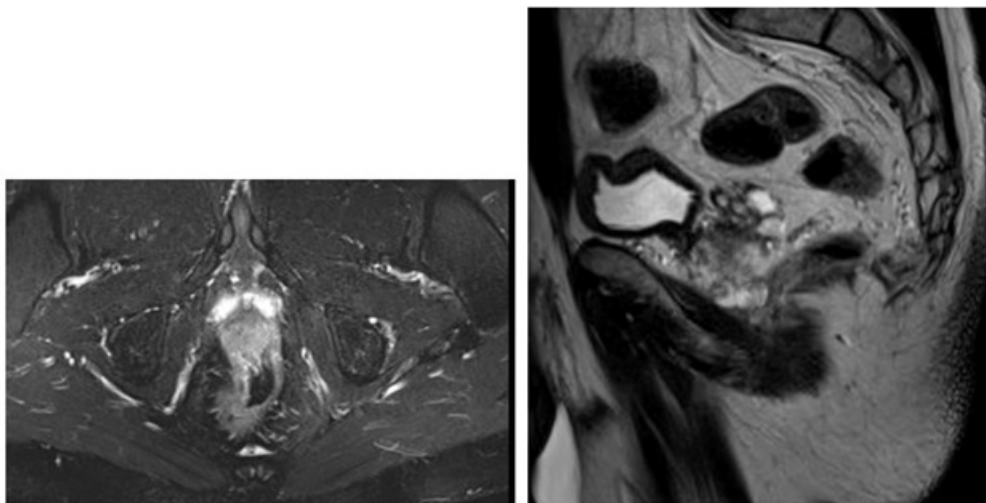


Figure 2: MRI pelvis with coronal (axial) and sagittal (right) views showing 2.7 cm soft tissue lesion involving the anterior rectal wall with its lower margin is nearly at the ano-rectal angle with ill-definition of the fat plane between the lesion and the prostate

The patient was diagnosed with rectal adenocarcinoma, grade II, cT4bN0MX, he was discussed in the national tumor board and recommended for a concomitant chemoradiation. The patient received neoadjuvant chemoradiation and 45 Gy in 25 fractions to pelvis with the boost of 50Gy to gross disease along with Capecitabine.

After finishing the chemoradiation, the patient underwent a CT abdomen and pelvis with MRI pelvis (Figure 3) that showed mid rectum and upper rectum with sigmoid colon diffuse wall thickening and complete resolution of the previously seen anterior rectal wall lesion. A repeated CT chest showed no interval changes.

The patient was reviewed in the Colorectal Clinic, and he stated that the symptoms have improved with no constipation or rectal bleeding. A follow-up colonoscopy showed regression of the previously seen tumor (Figure 4), and a repeated biopsy showed no evidence of residual malignancy. The response to chemoradiation was explained to the patient and the option of abdominoperineal resection (APR) with a permanent stoma or watchful waiting with frequent screening.

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A consent form was established that involved patients to adhere to a strict follow up protocol that includes regular outpatient clinic visits and physical examinations, laboratory tests, radiological investigations, colonoscopic interventions and possible medical therapies. The patient opted for watchful waiting as APR with a permanent stoma will affect his lifestyle.

Due to the findings of complete remission after neoadjuvant treatment, the decision of watchful waiting with routine screening was made alongside systemic chemotherapy (Capecitabine).

On a follow-up visit, a digital rectal examination revealed a cystic bulge felt approximately 3 cm from the anal verge anteriorly, and a flexible anoscopy showed an erythematous area with no active bleeding. Additionally, a biopsy taken from the previous tumor site showed no malignancy.

A recent MRI pelvis showed static anterior low rectum wall thickening of 6 mm and 15.5 mm length with no abnormal restricted diffusion at the anorectal junction. The patient is followed by colonoscopy with endorectal ultrasound every three months and MRI pelvis with CT CAP every six months.

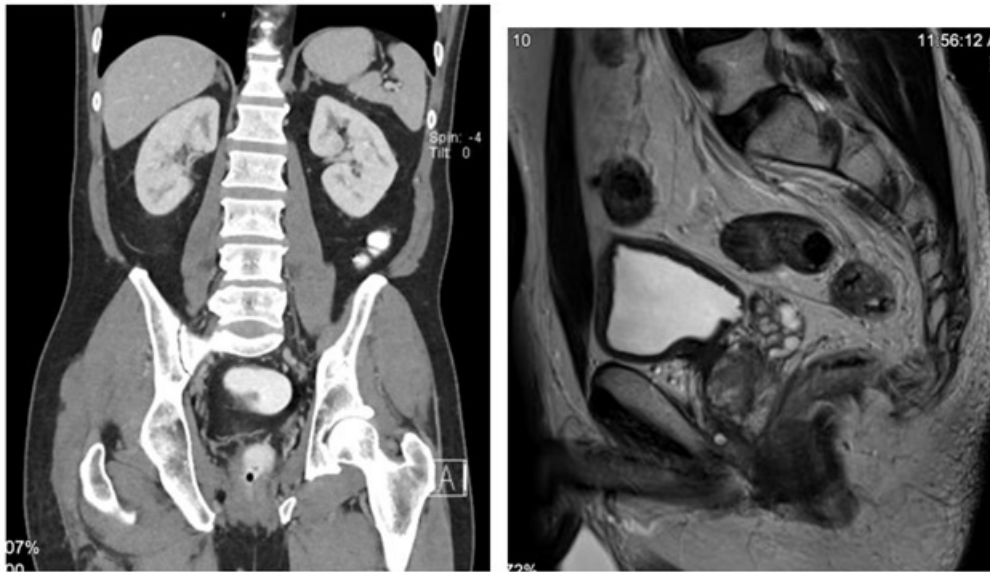


Figure 3: CT abdomen and pelvis (left) and MRI pelvis (right) showing mid and upper rectum with sigmoid colon diffuse wall thickening and complete resolution of the previously seen rectal lesion

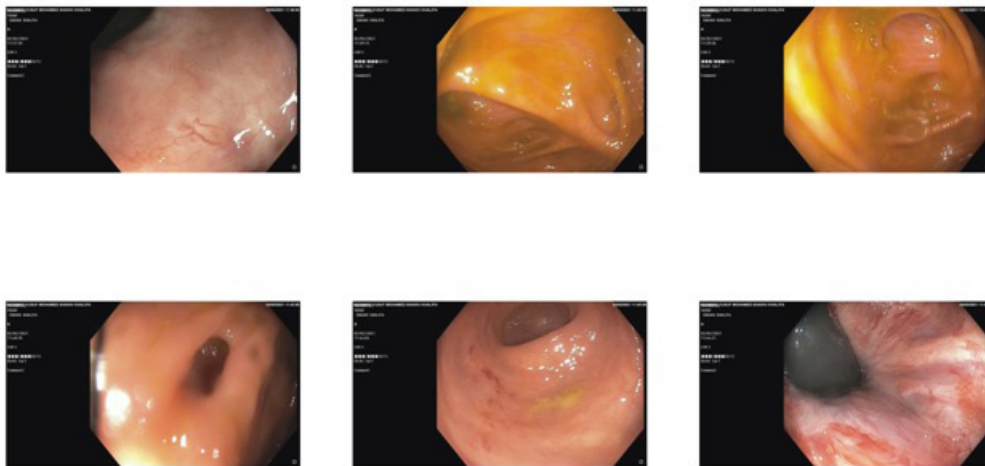


Figure 4: Colonoscopy showing regression of the previously seen tumor

4. Discussion

The current practice for locally advanced rectal cancer is neoadjuvant chemoradiotherapy followed by total mesorectal excision (TME) [1,2]. However, TME is associated with an increased risk of complications, perioperative mortality of 2% , having a permanent colostomy, and urinary and sexual dysfunction in more than 60% of the patients [3].

In 2004, Habr- Gama, and colleagues pioneered the wait-and-watch (WW) approach when there was a complete clinical response (cCR) post chemoradiation therapy [4]. Since then, a series of studies have been fueled for discussion over the approach [9-13]. One study showed better functional outcomes with the WW approach instead of surgery [13]. Over the years, a more individualized approach has focused on improving quality of life and functional outcomes. The WW, or organ preservation approach,

is reasonable for select patients, stratifying them based on parameters such as the elderly, comorbidities, favorable tumor intrinsic factors, strictest criteria for cCR, stage of cancer [5-7]. Patient selection is of paramount importance for the WW strategy to be beneficial to patients. A study by Mass et al. had set up stringent criteria for cCR- requiring the absence of any residual tumor on MRI and only permitted a small residual ulcer or scar on endoscopy [7]. They studied the WW approach on 21 patients, out of which only one had local regrowth [7].

Another study done by Qiao - xuan Wang et al., implemented a similar stringent criterion for cCR- no palpable nodule upon DRE, no residual tumor, or a flat white scar with or without telangiectasia, no ulceration or nodularity in endoscopic findings, no residual tumor, and no suspicious lymph nodes on MRI or pelvic CT scans and absence of distant metastasis [8]. Out of the 94 cases that underwent the WW approach, 14 had local recurrence in this study,

and 9 had distant metastasis. In comparison, the control group of 94 cases who underwent surgery had one local recurrence but 14 with distant metastasis [8]. This study favored this approach for patients with stage II/III rectal adenocarcinoma, post achieving cCR after NCRT. It is important to note that this study questioned the timing of occurrence of the metastasis, whether they occurred before choosing between surgery or WW.

A meta-analysis [6] in 2019 raised similar questions regarding 2-year local regrowth and 2-year distant metastasis. The meta-analysis concluded that the WW group has a higher 3- and 5-year overall survival rate than those who underwent surgery [6]. A study done by Smith et al. [14] suggested that the elderly and patients with multiple comorbidities had everything to gain with the WW approach. The reasoning behind this could be that these patients wouldn't be able to sustain the stress and following surgery complications; hence such a non-invasive approach could be strongly considered in such patients.

Although the WW strategy has shed light on an approach that has shown to significantly improve patients' quality of life and functional outcome [13], its application in clinical practice is still questionable. There are a couple of reasons for this: first, the ambiguity behind the definition (varies from center to center) of achieving cCR post NCRT; secondly, the intensive follow-up protocols that centers need to implement to deal appropriately with local recurrences distant metastasis. The current protocols to assess whether cCR is achieved (post NCRT) include a digital rectal examination, CT, MRI, EUS, proctoscopy, proctoscopy rebiopsy, and serum CEA level. However, not every center can routinely implement the strictest criteria and conclude a diagnosis of cCR after confirming negative on all the diagnostic methods mentioned above.

Ultimately, with a strict cCR post NCRT criteria in place and a standardized rigid follow-up protocol, WW is a novel treatment approach that should be considered in patients with advanced rectal adenocarcinoma.

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