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Non-surgical management (NSM) of rectal cancer. Series of 68 cases, long follow up in two leading centres in Argentina

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ABSTRACT

Background: The non-surgical management in a selected group of rectal cancer patients has shown promising results with adequate follow up.
Aims: describing the results of the non-surgical management in patients with complete clinical response, with a close follow up.
Methods: Between 2006 and 2015, patients with rectal cancer, stages I-III, without metastasis, treated with neoadjuvant CRT/CT, who had clinical complete response were included. CCR was defined through digital palpation, endoscopy-based criteria and MRI.

Follow up was set according to institutional guidelines.
Results: 68 patients were included. Initial stage was assessed with MRI in 55/68 pts and EUS 11/68. Considering the recurrence risk factors 57.6% (29/68) were T2-3ab N0, 3.3% (2/68) were T4N0, 29% (20/68) were T3-4 N1-2, with 39.7% with positive MRC. Mean distance to the anal margin was 3 cm. Chemoradiation included radiotherapy at 50.4 cGy, and concurrent capecitabine. In 22% a fluoropirimidine and oxaliplatin-based schema was used as induction therapy.

Median follow up was 37.5 months and response assessment time 9 weeks (5–19).

Eleven patients recurred, 6 endoluminally, 3 developed mesorectal recurrence, and two distant failure. Five years DFS and OS were 76.3% and 93.8%.
Conclusions: conservative management was feasible with close follow up in leading cancer centres.

In this series, DFS and OS were comparable to the data already reported in the literature.

1. Introduction

Multimodal management of rectal cancer with the combination of radiotherapy, chemotherapy and surgery has changed the standard approach of locally advanced rectal cancer (LARC) [1,2]. The relatively high local recurrence rates after surgery as the only treatment modality have led to the use of complementary treatment options, either before or after surgery for T3/T4 or N1 tumours.

It is known that about 15–20% of patients receiving neoadjuvant chemoradiation (CRT) present pathologic complete response (PCR) (histological absence of the tumour after standard resection). Habr Gama [3] then posed whether surgery could have been avoided in these patients and a "watch & wait" (W&W) approach could have been used instead.

At present there are controversies as for the adequate management of patients with rectal cancer with clinical complete response (CCR) after concurrent radiotherapy and chemotherapy.

For this reason, the non-surgical management (NSM) strategy was designed as an option in a selected group of patients with com-

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plete clinical response, and has shown promising results in large case series with adequate follow up, mainly after the reports by Habr Gama et al. in Brazil since 2004 [4].

Habr Gama [10] reported in their series local recurrence free survival in patients included in the watch and wait strategy, and in those who underwent salvage surgery. 90/183 patients with T2–T4 had a complete clinical response at the initial evaluation after CT/RT (49%).

Early local recurrence, that is within the first 12 months of follow up, and late local recurrence in 28 patients were included (31%), of these, 26 patients underwent rescue surgery.

The global salvage rate reached 93%. Local recurrence free survival at 5 years was 69% considering all the local recurrences and 94% after considering salvage surgery. Cancer specific survival at 5 years and disease free survival for all the patients included was 91% and 68%, respectively.

In a prospective study, Maas et al. [11] from The Netherlands included 21 patients with complete clinical response (CCR) after concurrent treatment with radiotherapy and capecitabine in a watch and wait (W&W) strategy. Response to treatment was assessed between 6 to 8 weeks after treatment with CRT, with MRI and endoscopy. With a median follow up of 25 months they observed a global survival of 100% at two years, and a disease free survival of 89% for the study patients.

These initial reports showed that there was a NSM alternative in a group of selected patients aiming to provide better functional outcome and quality of life (QOL).

The objective of our study was to describe the results of a NSM strategy in a group of rectal cancer patients with complete clinical response, with strict follow up in the setting of a multidisciplinary committee, in two leading cancer centres in Argentina, in the public and private sectors.

2. Patients and methods

Knowing that the current standard treatment for rectal cancer after neoadjuvant CRT is surgical resection with TME and because of the worldwide growing body of evidence proposing the NSM in certain rectal cancer patients with CCR, patients with complete clinical tumour regression after neoadjuvant CRT, defined by absence of residual mass or ulcer, no signs of residual tumour seen in radiological studies were considered as complete clinical responders and were offered the chance of NSM. These patients were fully informed that this condition could not last in time and that tumour regrowth could be detected at any time requiring immediate radical surgery.

The study is a retrospective cohort one where patients with a diagnosis of resectable rectal cancer, early stages I-III, without metastasis on initial staging were included. High resolution MRI was conducted in most cases as part of the initial assessment.

Patients were included after deciding on neoadjuvant treatment with radiotherapy and chemotherapy (RT/CT) or chemotherapy (CT) as part of the treatment. Between 2006 and 2015 the data of 68 patients treated at the Gastroenterology Hospital B. Udaondo ($n = 32$) and at the Alexander Fleming Institute ($n = 36$) in Buenos Aires, Argentina with a diagnosis of distal rectal cancer (<7 cm from the anal verge) receiving neoadjuvant treatment who achieved a complete clinical response were included. The characteristics of these patients appear in Table 1.

The assessment was retrospective and prospective. *Complete clinical response* was defined through rectal digital palpation, strict endoscopy-based criteria (absence of lesion, a flat scar, whitish lesion or telangiectasia), and MRI assessment in the setting of a multidisciplinary approach. The follow up was set according to institutional management guidelines in the population of interest included in the study. High resolution MRI, and rectoscopy were conducted every three months, and computed axial tomography every 6 months, whenever possible, at least during the first two years of follow up. The mean follow up was estimated from the end of RT/CT.

Table 1
Characteristics of patients according to initially planned surgery.

N°	Age	Gender	T	N	Distance	Follow-up	Planned SX
1	63	f	3	0	1	25	Miles
2	69	f	4	0	2	103	LAR
3	56	m	2	0	2	51	LAR
4	57	m	4	0	0.7	96	Miles
5	75	m	3	0	1	83	Miles
6	71	f	3	0	3	134	LAR
7	58	f	3	0	1	134	Miles
8	48	m	3	0	0.50	76	Miles
9	55	f	3	0	2	72	LAR
10	44	f	3	0	2	91	LAR
11	76	m	3	s/d	0.5	47	Miles
12	32	m	2	1	1	47	Miles
13	75	f	3	0	3	29	LAR
14	63	m	2	0	3	24	LAR
15	28	m	3	1	10	29	LAR
16	72	f	s/d	s/d	4	16	LAR
17	56	m	2	1	4	70	LAR
18	50	f	2	1	5	39	LAR
19	81	m	3	1	2	49	LAR
20	53	m	2	0	5	55	LAR
21	36	m	3	0	7	26	LAR
22	61	m	2	0	5	10	LAR
23	47	f	3	0	5	7	LAR
24	40	m	3	1	10	5	LAR
25	66	m	3	0	7	7	LAR
26	61	m	2	2	4	42	LAR
27	60	m	3	0	5	13	LAR
28	62	m	2	1	3	11	LAR
29	57	F	3	1	3	16	LAR
30	77	F	3	1	6	19	LAR
31	46	M	3	0	0.5	11	Miles
32	47	M	3	1	4.5	22	LAR
33	46	M	4	0	2	7	LAR
34	53	M	4	1	1	18	Miles
35	58	M	3	2	4	20	LAR
36	82	M	2	0	2	26	LAR
37	33	M	2	0	1	60	Miles
38	37	F	4	2	2	66	Miles
39	37	M	3	1	3	30	LAR
40	40	F	3	2	4	52	LAR
41	43	F	2	0	2	45	Miles
42	44	M	2	1	1	39	Miles
43	44	M	2	0	1	19	Miles
44	62	M	2	1	6	38	LAR
45	46	F	3	1	7	22	LAR
46	48	F	3	0	3	32	LAR
47	50	M	3	1	5	55	LAR
48	50	M	3	0	2	24	Miles
49	51	F	3	2	1	66	Miles
50	52	F	3	1	5	48	LAR
51	53	M	3	0	5	25	LAR
52	53	F	2	1	3	36	RAB
53	60	M	3	1	1	37	Miles
54	61	M	3	1	2	50	Miles
55	62	F	2	1	2.5	38	Miles
56	64	M	x	1	3	40	LAR
57	65	F	3	0	3	60	LAR
58	65	F	3	0	3	48	LAR
59	66	F	2	0	1	37	Miles
60	67	F	4	0	4	58	LAR
61	68	M	3c	2	1	24	Miles
62	76	M	3	1	5	42	LAR
63	80	F	3	0	5	37	LAR
64	82	F	3	1	5.5	40	LAR
65	66	M	2	0	5	8	LAR
66	86	M	2	1	1	38	Miles
67	60	F	2	1	5	10	LAR
68	68	M	3	0	4	19	LAR

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