

Watch and wait for rectal cancer: assessing the cost effectiveness in Latin America

Observar y esperar para cáncer de recto: evaluación del costo efectividad en América Latina

Jorge Luna-Abanto^{1,2}

¹ Surgical oncology department, Instituto Nacional de Enfermedades Neoplásicas. Lima, Perú.

² Postgraduate School, Universidad Peruana Cayetano Heredia. Lima, Perú.

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ORCID: Jorge Luna-Abanto: [0000-0001-8795-6635](https://orcid.org/0000-0001-8795-6635)

Mr. Editor:

Growing evidence favors the nonoperative management of locally advanced rectal cancer, also known as “watch and wait” (W&W), after chemoradiotherapy in patients with a clinical complete response^(1,2). This emerging strategy’s main goal is to improve the quality of life without compromising cure rates. Close surveillance protocols, including both: imaging studies and colonoscopy, are required for the early detection of possible regrowth and systemic recurrence⁽²⁾. However, these follow-up protocols are heterogeneous, some authors include the physical examination, serial carcinoembryonic antigen levels (CEA) measurements and endoscopy in three-month intervals during the first two years and in six-month intervals from the third to fifth year of follow-up⁽³⁾. Other authors include rectal digital palpation, strict standardized endoscopy-based criteria, and pelvic magnetic resonance imaging assessment in the setting of a multidisciplinary approach^(2,3). Usually, the time intervals are 3 months and include a CT scan of the abdomen and chest every 6 months⁽⁴⁾. Surprisingly, despite the clinical evidence of the W&W approach, there are few studies evaluating the cost effectiveness of it compared to upfront surgery, and to our knowledge there are no reports in the Latin America region.

The cost effectiveness of W&W has been evaluated in North America and Europe. Miller et al. developed a decision analytic Markov model, in which they compared W&W, with upfront low anterior resection, or upfront abdominoperineal resection in terms of recurrence rates, surgical salvage rate, utilities, and costs in the United States⁽⁵⁾. They observed a superior long-term quality-adjusted survival and decreased costs of W&W relative to upfront surgery⁽⁵⁾. On a Dutch study,

the cost effectiveness of W&W in locally advanced rectal cancer patients with complete clinical response was evaluated, Hendriks reported that the implementation of W&W had the potential to improve the quality of life of patients and reduce health care costs⁽⁶⁾. Using this model, \$583 can be saved per patient whilst improving quality of life. This cost effectiveness may further be increased by improving the identification of real complete responders⁽⁶⁾.

A recent study by Rao et al. evaluated the cost effectiveness of W&W in older adults, using a Markov simulation, they found that W&W was most cost effective in 69.6% of model iterations; this increased to 83.5% and 89.2% in older patients with and without comorbidities, respectively⁽⁷⁾. This model suggested that not only W&W is clinically effective; but, it is also cost effective⁽⁷⁾. Gani et al. evaluated the costs of this approach in the private health care setting, in their paper they estimated that this approach is a cost effective intervention compared to upfront radical surgery⁽¹⁾.

As the implementation of the W&W approach is increasing worldwide⁽²⁾, it is important assess its clinical benefit and the cost effectiveness analysis in our region before its implementation. Nevertheless, all the reviewed studies were based on statistical and decision analytical models that simplify the complex clinical scenarios we face in the clinical practice. In this context, Latin America needs evidence on patient preferences and specially cost analysis on the implementation of W&W.

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REFERENCES

1. Gani C, Grosse U, Clasen S, Kirschniak A, Goetz M, Rödel C, *et al.* Cost analysis of a wait-and-see strategy after radiochemotherapy in distal rectal cancer. *Strahlenther Onkol.* 2018;194(11):985-990.
2. Sammour T, Price BA, Krause KJ, Chang GJ. Nonoperative Management or 'Watch and Wait' for Rectal Cancer with Complete Clinical Response After Neoadjuvant Chemoradiotherapy: A Critical Appraisal. *Ann Surg Oncol.* 2017;24(7):1904-1915.
3. Araujo RO, Valadão M, Borges D, Linhares E, de Jesus JP, Ferreira CG, *et al.* Nonoperative management of rectal cancer after chemoradiation opposed to resection after complete clinical response. A comparative study. *Eur J Surg Oncol.* 2015;41(11):1456-63.
4. Sanchez Loria F, Iseas S, O'Connor JM, Pairola A, Chacon M, Mendez G, *et al.* Non-surgical management of rectal cancer. Series of 68 cases, long follow up in two leading centres in Argentina. *Dig Liver Dis.* 2016;48(11):1372-1377.
5. Miller JA, Wang H, Chang DT, Pollom EL. Cost-Effectiveness and Quality-Adjusted Survival of Watch-and-Wait after Complete Response to Chemoradiotherapy for Rectal Cancer. *J Natl Cancer Inst.* 2020;112(8):792-801.
6. Hendriks P. Health economic evaluation of watch and wait policy after clinical complete response to neoadjuvant chemoradiotherapy in locally advanced rectal cancer patients. Master thesis Health Sciences. Nederland: University of Twente; 2016.
7. Rao C, Sun Myint A, Athanasiou T, Faiz O, Martin AP, Collins B, *et al.* Avoiding Radical Surgery in Elderly Patients With Rectal Cancer Is Cost-Effective. *Dis Colon Rectum.* 2017;60(1):30-42.

Correspondence:

Jorge Luna-Abanto

Avenida Angamos Este 2520 Surquillo Lima, Perú.

E-mail: jorgelunaabanto@gmail.com