



# Laparoscopic colorectal surgery in a geriatric population

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The proportion of older population has been rapidly growing and it is expected to continue to grow in the following years. In the United States adults aged 65 or older are the fastest growing segment of the population and their number is expected to double to 89 million people between 2010 and 2050 (1). Colon cancer is highly prevalent in western countries with raising incidence in parallel to the advanced age of population. Thus, surgery for colorectal cancer in geriatric population is common on daily practice.

Frailty is common in geriatric population. It is well known that this situation determines that geriatric patients have a reduced physiological reserve to face stressors and are more susceptible to disability and postoperative complications (2). In addition, the rate of adverse postoperative outcomes increases with age. However, there are several series published in the literature with the standard message that there is no contraindication regarding age, if patients are fit for surgery (3,4).

The target of treatment of colorectal cancer in this group of patients is achieving control of symptoms, disease-free survival but also to maintain quality of life (5,6). In our experience, surgical treatment of colorectal cancer in octogenarians can achieve good clinical results compared with a younger cohort of patients, with good quality of life (7). In addition, recently, the results of the CLIMHET Study Group had demonstrate the results in a large cohort of older patients who were operated for right colon cancer using laparoscopic approach (8) that this minimal invasive technique it would be a good option for this group of patients. It poses then in doubt, the historical controversy regarding its deleterious effect of laparoscopic

approach in patients with advanced age. It is evident that pneumoperitoneum and laparoscopy in general has effect on physiology of elderly population but itself it is not a contraindication in these patients if teams developed some specific clinical guidelines, pathways and considerations.

Previous experiences and recent advances have increased our knowledge in the overall management of geriatric surgical patient that might be taken into account when we are in front of them (9). Surgical, but also medical complications can occur in patients with advanced age, and they are able to be followed by life-threatening situations in this period of life. Thus, an accurate preoperative assessment and the use of specific clinical pathways, especially in fragile patients, are warranted. As part of Quality Programs initiatives, Quality in Geriatric Surgery is one of the main projects of The American College of Surgeons, and it comprises several measures and some guidelines to help clinicians and stakeholders (10). But also, this is the reason why medical and surgical societies are promoting patient-centred initiatives helping clinicians for management of specific surgical diseases as colorectal cancer on elderly patients (11).

Our traditional focus has been to cure diseases, but among the geriatric population the value of quality of life can be a major burden than shortage of life expectancy. In consequence, shared decision-making with the patient rather than just anaesthesiologic fitness for surgery, is key in a geriatric preoperative evaluation (12). Additionally, there are some scales that allows to assess clinical and functional status (13).

After decision is made about surgery and assessment

has been taken, there is a growing research on how we can optimize the general condition of geriatric patient before surgery. Prehabilitation has centred scientific interest for the last decades (14). It consists in a variety of actions, including correction of lifestyle behaviour (i.e., smoking cessation) or scheduling an exercise program in order to cope with the future surgical procedure.

Intraoperative and postoperative management of elderly population needs some special considerations. Specially regarding anaesthesiology and medical management of some complications. This is why in general the management with specialized multidisciplinary teams had been identified as key in these patients (15). Orthopaedics surgeons had been pioneers in this setting with significant results on morbidity and mortality (16).

In conclusion, the management of colorectal cancer is particularly challenging in elderly population, surgery and specifically laparoscopic surgery is safe a feasible using multidisciplinary teams for selection of patients, sharing decision with patients and to manage perioperative phase.

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## References

1. Werner C. The Older Population: 2010. Washington, DC: U.S. Census Bureau.
2. Saliba D, Elliott M, Rubenstein LZ, et al. The Vulnerable Elders Survey: a tool for identifying vulnerable older people in the community. *J Am Geriatr Soc* 2001;49:1691-9.
3. Kazama K, Aoyama T, Hayashi T, et al. Evaluation of short-term outcomes of laparoscopic-assisted surgery for colorectal cancer in elderly patients aged over 75 years old: a multi-institutional study (YSURG1401). *BMC Surg* 2017;17:29.
4. Guida F, Clemente M, Valvano L, et al. Laparoscopic or open hemicolectomy for elderly patients with right colon cancer? A retrospective analysis. *G Chir* 2015;36:205-8.
5. Audisio RA. Tailoring surgery to elderly patients with cancer. *Br J Surg* 2016;103:e10-1.
6. Nagtegaal ID. Never too old to fight cancer? What do we know about colorectal cancer in the elderly? *Colorectal Dis* 2017;19:223.
7. Jiménez I, Pacha MÁ, Pares D, et al. Survival and quality of life after surgery for colorectal cancer in the elderly: a comparative study. *Rev Esp Enferm Dig* 2018. [Epub ahead of print].
8. Franco I, de'Angelis N, Canoui-Poitaine F, et al. Feasibility and Safety of Laparoscopic Right Colectomy in Oldest-Old Patients with Colon Cancer: Results of the CLIMHET Study Group. *J Laparoendosc Adv Surg Tech A* 2018;28:1326-33.
9. Bentrem DJ, Cohen ME, Hynes DM, et al. Identification of specific quality improvement opportunities for the elderly undergoing gastrointestinal surgery. *Arch Surg* 2009;144:1013-20.
10. Berian JR, Rosenthal RA, Baker TL, et al. Hospital Standards to Promote Optimal Surgical Care of the Older Adult: A Report From the Coalition for Quality in Geriatric Surgery. *Ann Surg* 2018;267:280-90.
11. Montroni I, Ugolini G, Saur NM, et al. Personalized management of elderly patients with rectal cancer: Expert recommendations of the European Society of Surgical Oncology, European Society of Coloproctology, International Society of Geriatric Oncology, and American College of Surgeons Commission on Cancer. *Eur J Surg Oncol* 2018;44:1685-702.

12. Geessink NH, Schoon Y, Olde Rikkert MG, et al. Training surgeons in shared decision-making with cancer patients aged 65 years and older: a pilot study. *Cancer Manag Res* 2017;9:591-600.
13. Bissot M, Henin PY, Aunac S, et al. Preoperative frailty assessment: a review. *Acta Anaesthesiol Belg* 2016;67:157-73.
14. McIsaac DI, Saunders C, Hladkiewicz E, et al. PREHAB study: a protocol for a prospective randomised clinical trial of exercise therapy for people living with frailty having cancer surgery. *BMJ Open* 2018;8:e022057.
15. Parés D, Fernandez-Llamazares J. Multidisciplinary unit for the surgical management of geriatric patient. *Cir Esp* 2018;96:129-30.
16. Pilotto A, Cella A, Pilotto A, et al. Three Decades of Comprehensive Geriatric Assessment: Evidence Coming From Different Healthcare Settings and Specific Clinical Conditions. *J Am Med Dir Assoc* 2017;18:192.e1-11.

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