

## Frailty Patient and Surgery Jordi Castellvi Valls\*

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The increase in life expectancy leads to a consecutively older population and they can be exposed to aggressive surgical procedures. Advanced age and comorbidities have a great impact in surgical recovery, especially in patients with neoplasms (and in terms of mortality). This can have an impact on longer hospital stay and in an excessive use of healthcare resources, resulting in poorer outcomes in terms of quality of life and even survival<sup>1,2,3,4</sup>.

These scenarios often weaken the relationship between doctor and patient and may even result in a loss of trust from the patient and relatives, which might be challenging whenever a complication develops. Even though none of these aspects are a contraindication in their own right, they should be taken under consideration when assessing this kind of patients, because of their particular frailty.

"Frailty" is a condition characterised by an increased vulnerability to stressful situations, caused by a decrease in functional reserve and an impairement of the homeostatic mechanisms. In a basal state, a frail patient might be able to perform physiological functions without difficulty, but when faced with a stressful situation, such as surgical trauma, the reduced reserve might not be enough to maintain homeostasis. Using this definition, it is stablished that frailty might be present in up to 6.9% of patients over the age of 65.

Therefore, our aim should be to identify this subgroup of patients early before even surgery takes place. Many markers of frailty have already been defined, such as age, cognitive impairment, malnourishment, anemia, etc<sup>7,8</sup>.Scores to properly assess the presence of frailty have also been proposed and are currently used in Geriatric medicine. However, we believe that the concept of frailty in the surgical patient is not usually well recognised, and thus we propose developing specific preoperative frailty markers that could potentially correlate with surgical outcomes. Studies are needed in order identify this specific population and offer them a more optimal assessment.

Empirical frailty criteria are defined in our study and we expect to publish our preliminary results in the next few months, after the conclusion of a prospective study<sup>12</sup>.

The key point is to provide a better and more individualized attention to these patients using an early identification method. We have observed that the presence of a multidisciplinary team specifically dedicated to this process allows for a better decision making and eventually for better outcomes<sup>12,13,14,15</sup>. In this sense, we propose that the creation of such team may be advisable in order to improve the assessment of complex patients, who will benefit from a diverse group of professional opinions. This team should include an anesthetist, an internist, a geriatrician, the responsible surgeon and a clinic nurse. This team should be responsible for the follow-up of the whole patient pathway, the coordination within all the professionals, the decision making, optimization, limitation of the therapeutic efforts when necessary and to sum up in the prevision of the medical and social resources needed after discharge.

One of the key aspects of this process is a close relationship with primary care units. Our preliminary analysis includes a wide series of cases which endorse this statement and we strongly believe it is the way forward, although we recognize that more studies are needed in order to confirm this finding. It is paramount to keep in mind that more resources are not necessary, but rather a better and more efficient distribution and with specific targets. Only a few units have a multidisciplinary group like the one we describe, and there is hardly any evidence about this subject. For this reason we encourage other units to report their results and share their experiences on this matter.

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Lastly, it is difficult to avoid questioning whether our decision to perform major surgery in elderly and frail patients is appropriate in the light of poorer outcomes<sup>16,17,18</sup>. The ability to establish the therapeutic threshold for each patient is mandatory in order to ensure the optimal treatment and to minimise therapeutic obstinacy or cruelty. Occasionally, therapeutic abstinence might be the best suited option for a given patient, given that it is individually discussed and agreed upon prior to any intervention. Relatives and family of the patient should also be involved in the decision-making process, given that they are often of great help to improve patient-doctor communication when surgery is considered to be of greater risk that the disease itself.

In conclusion, surgical treatment of frail and elderly patients is complex, time-consuming, and occasionally demanding, and thus requires highly skilled, tenacious and relentless professionals that can to take this subject to the next level. Only under these circumstances that we should achieve satisfactory outcomes not only for the patients and their families, but also for the professionals, and ultimately we hope to be able to rationalize resources in a more efficient way.

## REFERENCES

- [1] Ong ES, Alassas M, Dunn KB, et al. Colorectal cancer surgery in the elderly: acceptable morbidity? Am J Surg. 2008; 195: 344-8.
- [2] Lemmens VE, Janssen-Heijnen ML, Verheij CD, Houterman S, Repelaer van Driel OJ, Coebergh JW. Co-morbidity leads to altered treatment and worse survival of elderly patients with colorectal cancer. Br J Surg. 2005; 92: 615–23.
- [3] Audisio RA, van Leeuwen B. When reporting on older patients with cancer, frailty information is needed. Ann SurgOncol 2011; 18(1): 4–5.
- [4] Robinson TN, Wu DS, Stiegmann GV, Moss M. Frailty predicts increased hospital and six-month healthcare cost following colorectal surgery in older adults. Am J Surg 2011; 202(5): 511-4.
- [5] Sevilla MP. Reflection on an ethical conflict in the surgery of the elderly. Cir Esp 2003 Jul; 74 (1) Vol 74.
- [6] Fried LP, Tangen CM, Walston J, et al. Frailty in older adults: evidence for a phenotype. J Gerontol A BiolSci Med Sci. Mar 2001; 56(3): M146-156.

- [7] Revenig LM, Canter DJ, Taylor MD, et al. Too frail for surgery? Initial results of a large multidisciplinary prospective study examining preoperative variables predictive of poor surgical outcomes. J Am CollSurg 2013; 217(4). 665-670.
- [8] Tan KY, Kawamura Y, Mizokami K, et al. Colorectal surgery in octogenarian patients-outcomes and predictors of morbidity. Int J Colorectal Dis. 2009; 24: 185-189.
- [9] Tan KY, Kawamura YJ, Tokomitsu A, Tang T. Assessment for frailty is useful for predicting morbidity in elderly patients undergoing colorectal cancer resection whose comorbidities are already optimized. Am J Surg 2012; 204(2): 139–43.
- [10] Medarde-Ferrer M, Serra-Genís C, Roca J, Quer X, Sala F, Palau MA, Guixà M, de Cózar J, Molinas J, Tortras J, de Caralt E. Objective assessment of the level of comorbidity in geriatric patients with bowel cancer: relationship between the surgical results and survival. Cir Esp. 2013; 91(4): 231-6.
- [11] Manceau G, Karoui M, Werner A, Mortensen NJ, Hannoun L. Comparative outcomes of rectal cancer surgery between elderly and non-elderly patients: a systematic review. Lancet Oncol 2012; 13(12): e525–36.
- [12] Castellvi J , Borrell N , Bernat MJ. Colorectal Carcinoma in the Frail Surgical Patient. Implementation of a Work Area Focused on the Complex Surgical Patient Improves Postoperative Outcome. Cir Esp 2018; 96: 155-61
- [13] Practice Advisory for Preanesthesia Evaluation. A Report by the American Society of Anaesthesiologists Task Force on Preanesthesia Evaluation. Anesthesiology 2002; 96: 485-96
- [14] Fagard K , Leonard S , Deschodt M. The impact of frailty on postoperative outcomes in individuals aged 65 and over undergoing elective surgery for colorectal cancer: A systematic review. J GeriatrOncol. 2016 Nov; 7 (6): 479 – 491
- [15] Fearon KC, Jenkins JT, Carli F and Lassen K. Patient optimization for gastrointestinal cancer surgery. British Journal of Surgery 2013; 100: 15–27.
- [16] Warren B Chow, Ronnie A Rosenthal, Ryan P Merkow, Clifford Y Ko, Nestor F Esnaola. Optimal Preoperative Assessment of the Geriatric Surgical

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Patient: A Best Practices Guideline from the American College of Surgeons National Surgical Quality Improvement Program and the American Geriatrics Societ. J Am CollSurg, 2012; Vol. 215, No. 4.

[17] Bhangu A, Kiran RP, Audisio R, Tekkis P Survival outcome of operated and non-operated elderly

patients with rectal cancer: A Surveillance, Epidemiology, and End Results analysis. Eur J SurgOncol. 2014; 40(11): 1510-6

[18] Handforth C, Clegg A, Jove C. The prevalence and outcomes of frailty in older cancer patients: a systematic review. Ann Oncol. 2015 Jun; 26 (6): 1091-101.

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