



CIRUGÍA ESPAÑOLA

www.elsevier.es/cirugia



Editorial

Technology, patients and value-based surgery

Tecnología, pacientes y cirugía basada en valor



This issue of CIRUGÍA ESPAÑOLA includes an interesting article by Rocamora González et al.¹ that describes the results of a multicenter, prospective, randomized, single-blind (evaluator) study from an intervention based on the combination of psychology (mindfulness) and mobile technology (app), which aimed to determine the short-term impact of surgery (at discharge and one month after discharge) on anxiety/depressive symptomatology and the quality of life of patients with colorectal cancer.

The article merits special attention for several notable factors. First of all, it communicates a scientific study that did not have a positive result. The publication of null or negative results² from a clinical trial of this type should be mandatory because:

- 1 Scientific credit should be given to the authors after the effort involved in conducting clinical research of such complexity.
- 2 It represents a step forward towards transparency and the need for reproducibility in clinical research, which are frequently questioned, and not without reason.³
- 3 Negative/null results are part of the progress of research, as they allow other authors to formulate, refine or discard hypotheses and improve the methodology of future studies that advance in the same line of knowledge.

The second relevant factor is that it is a clinical trial that does not focus on the surgical technique or the biological side of the disease, but instead on the psychological impact of a condition like colorectal cancer and its treatment. It is an obligation for surgeons to generate scientific evidence on surgical practice during the complete cycle of care, while trying to reduce the impact of complex surgical procedures in conditions of uncertainty on individuals and their social circle.

Third, this study leaves questions unanswered about the lack of effect of the intervention. The moderate effectiveness of mindfulness for the treatment of anxiety and mood disorders in patients with medical conditions has been

demonstrated by various meta-analyses, even when the interventions are conducted through e-health technologies.⁴ Thus, is the negative result due to the selection of patients for the study, the mindfulness intervention itself in surgical patients, or the channel chosen to carry out the intervention? Are discharge and one month after surgery the right moments to evaluate this effect?

A surprising number of patients were excluded from the study, and the number of patients who did not want to participate in the study was likewise noteworthy. In addition, the baseline anxiety level of the group of patients studied was strikingly low. Information is lacking on perioperative management and potential confounding factors, such as the number of patients with rectal cancer (“patients with colorectal cancer” are mentioned) and whether they were administered neoadjuvant therapy. There is also no mention of the surgical approach or the comparison between groups (open versus laparoscopic surgery), which would make the study sample rather inhomogeneous. In addition, comparative information on postoperative complications and their degree of severity is not available.

Undoubtedly, this study takes a step forward in the construction of the new paradigm: value-based surgery.⁵ It is not enough to be effective or efficient; we must also advance in the generation of results that matter to our patients and to society.⁶ While leading multidisciplinary teams that also involve patients, surgeons need to formulate relevant questions and generate scientific evidence on the use of digital technologies to fight against the seven major problems that affect surgery around the world:

- 1 Unjustified variability of quality and results
- 2 Damage induced by adverse effects
- 3 Resources wasted on interventions that do not generate value
- 4 Inequalities and inequities in access to safe, effective surgery
- 5 Lack of prevention

- 6 Depersonalization of patients and professionals
7 Carbon footprint

In short, the authors should be congratulated for undertaking a study of this complexity as it poses new and relevant questions, whose answers would help us improve the comprehensive care of surgical patients with colorectal cancer within a value-based surgery model.

REFERENCES

1. Rocamora González C, et al. Intervención basada en mindfulness a través de una app móvil para personas con cáncer colorrectal en espera de cirugía: ensayo clínico aleatorizado. *Cir Esp*. 2021. <http://dx.doi.org/10.1016/j.ciresp.2021.10.007>. in press.
2. Johnson R, Dickersin K. Publication bias against negative results from clinical trials: three of the seven deadly sins. *Nat Rev Neurol*. 2007;3:590-1. <http://dx.doi.org/10.1038/ncpneuro0618>.
3. Ioannidis JPA. Why most published research findings are false. *PLoS Med*. 2005;2:e124. <http://dx.doi.org/10.1371/journal.pmed.0020124>.
4. Mikolasek M, Berg J, Witt CM, Barth J. Effectiveness of mindfulness- and relaxation-based eHealth interventions for patients with medical conditions: a systematic review and synthesis. *Int J Behav Med*. 2018;25:1-16. <http://dx.doi.org/10.1007/s12529-017-9679-7>. PMID: 28752414.
5. Gray M, Mayol J. Value based surgery. Available from: <https://www.asgbi.org.uk/userfiles/file/journals/summer-2019-jasgbi.pdf>. [Accessed 30.6.2022].
6. Mayol J. Value based surgery. *J Healthc Qual Res*. 2022;37:199-200. <http://dx.doi.org/10.1016/j.jhqr.2022.06.001>.

Julio Mayol

Hospital Clínico San Carlos, Instituto de Investigación Sanitaria San Carlos, Universidad Complutense de Madrid, Calle Martín-Lagos S/N, 28040 Madrid, Spain

2173-5077/

© 2022 AEC. Published by Elsevier España, S.L.U. All rights reserved.