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CORRESPONDENCE

How useful is the LARS score in the evaluation and treatment of LARS?

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The development of the low anterior resection syndrome (LARS) score [1] has been extremely useful to underscore the importance of assessing functional outcomes after rectal cancer treatment. The LARS score is a validated questionnaire that, according to the authors, includes the five issues that most bother the patients: flatus incontinence, incontinence of liquid stool, frequency, clustering and urgency. The rating scale ranges from 0 to 42 points and patients are classified into three groups: "no LARS" (0–20 points), "minor LARS" (21–29 points) and "major LARS" (30–42 points). The score has been translated into several languages and it has been used in many studies, with a recent meta-analysis reporting rates of "major LARS" of 41% [2]. In most of these studies, the LARS score was sent to the patients by post, together with a quality of life questionnaire, but did not include a clinical assessment. Moreover, the score has been used to compare functional outcomes between two surgical approaches and the effectiveness of treatments such as sacral neuromodulation.

We carried out a study [3] to assess whether the LARS score as a single questionnaire was useful enough in the clinical setting in which patients were sent the LARS score and the European Organization for Research and Treatment of Cancer Quality of Life Questionnaire version 3.0 (EORTC QLQ-C30) questionnaires by post. Those classified as "minor" and "major" LARS were assessed clinically (using a detailed interview, several other scores and a bowel diary) if they reported symptoms of defecatory urgency and/or fecal incontinence. Although the number of patients was small, we found that the LARS score overestimated the impact on quality of life in 24% of patients. These patients were classified as "major LARS", but they did not report that experiencing bowel dysfunction affected their quality of life when they were assessed clinically. Moreover, it underestimated the impact of severe evacuatory dysfunction (5 out of 21 patients classified as "no LARS", 23.8%), as this subgroup of patients is missed by the LARS questionnaire. This fact raises questions about the sensitivity of the score.

According to the authors who developed the LARS score [1], "it showed a high sensitivity (72.54%) and a high specificity (82.52%) for identifying patients with major LARS which were those with a major impact on quality of life".

Recently, Juul et al. [4] performed a study which aimed to provide normative data for the LARS score. Although the authors should certainly be congratulated for trying to improve the interpretation of the LARS score, clear explanations on how to do it are lacking. The questionnaire was sent to a random sample of the general population and a total of 1875 people (54.5%) responded. Overall, 15% of females and 9.9% of males were categorized as "major LARS", which increased to almost 19% of females in the group from 50 to 79 years. Therefore, a questionnaire specifically developed to assess bowel dysfunction after rectal cancer treatment turns out to be abnormal in a significant proportion of the general population, which raises questions about its specificity. In fact, these figures correlate well with data provided on the sensitivity and specificity of the LARS score when it was developed [1]. In our opinion, the score probably identifies patients with bowel dysfunction at large, such as those with irritable bowel syndrome (IBS) or fecal incontinence. Moreover, the authors point out that there was an association between "major LARS" and morbidity, which was evaluated only by asking whether participants had any physical disease and allowing a dichotomous response (yes/no). It is likely that patients with a bowel dysfunction answered "yes" to this question given the severe impact on their quality of life.

These questions regarding the specificity and sensitivity of the test raise doubts about the usefulness of the LARS score as a single questionnaire to assess LARS. We are concerned that the simplicity of administration has led researchers to design studies selecting changes in the LARS score

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as the primary outcome measure, sometimes using it as a single questionnaire.

In our opinion, due to the complexity of the syndrome, the LARS score may be a useful tool for screening, but it is not subtle enough to properly assess bowel dysfunction after rectal cancer treatment, or the outcomes of any therapeutic procedure. As we concluded in our study [3], we would recommend including a detailed clinical evaluation, the use of multiple questionnaires and a bowel diary which would provide more clinical information. In our clinical practice, we assess the medical history that may contribute to the symptoms (such as previous deliveries, diabetes mellitus, IBS, neurological conditions, cholecystectomy, and previous anal, colorectal or pelvic floor surgery) as well as current medication. Bowel symptoms are registered systematically including the number of bowel movements, clustering, feeling of incomplete evacuation, defecatory urgency, fecal or gas incontinence, soiling, nocturnal defecations, obstructive sensation, straining, and absence of desire to defecate. Several scores are also included (Bristol scale, Vaizey score, fecal incontinence quality of life (FIQL) LARS score and validated questionnaires assessing urinary and sexual function), as well as a subjective evaluation of the bowel, urinary and sexual function on a visual analogue scale. Finally, a bowel diary completes the assessment providing information on the number of bowel movements per week, of urgency episodes per week, and of urge or passive fecal incontinence episodes per week.

Compliance with ethical standards

Conflict of interest The authors declare that they have no conflict of interest.

Ethical approval This is a letter to the editor commenting on a topic, not a study so ethical approval is not required.

Informed consent For this type of study formal consent is not required.

References

1. Emmertsen KJ, Laurberg S (2012) Low anterior resection syndrome score: development and validation of a symptom-based scoring system for bowel dysfunction after low anterior resection for rectal cancer. Ann Surg 255:922–928
2. Croese AD, Lonie JM, Trollope AF, Vangaveti VN, Ho YH (2018) A meta-analysis of the prevalence of Low Anterior Resection Syndrome and systematic review of risk factors. Int J Surg 56:234–241. https://doi.org/10.1016/j.ijsu.2018.06.031
3. Ribas Y, Aguilar F, Jovell-Fernández E, Cayetano L, Navarro-Luna A, Muñoz-Duyos A (2017) Clinical application of the LARS score: results from a pilot study. Int J Colorectal Dis 32(3):409–418. https://doi.org/10.1007/s00384-016-2690-7
4. Juul T, Elfeki H, Christensen P, Laurberg S, Emmertsen KJ, Bager P (2018) Normative data for the low anterior resection syndrome score (LARS score). Ann Surg. https://doi.org/10.1097/SLA.0000000000002750