

Predictive parameters to identify incontinent patients amenable for rehabilitation treatment: the muscular synergies evaluation

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Dear Sir,

We have read with great interest the article “Predictors of unsuccessful of treatment for fecal incontinence biofeedback for fecal incontinence in female” by Murad-Regadas SM et al.⁽¹⁾. We congratulate the journal and the Authors for the publication of a paper on the indications, outcomes and modality of biofeedback treatment in patients with fecal incontinence. In the article, the Authors underlined and discussed the several causes of fecal incontinence, such as anatomical causes, sphincter damage, neurological dysfunction and idiopathic disease, and moreover, admirably highlighted the potential predictive factors of efficacy of biofeedback treatment. Murad-Regadas and colleagues, as commonly happens, stratified patients on the basis of a clinical score (Cleveland Clinic Fecal Incontinence score), assigned them a continence level and selected patients to candidate to rehabilitative treatment as biofeedback.

It is well known that biofeedback treatment allows, through a probe, a device and a dedicated monitor, the visualization and representation of the contraction and relaxation activity of the anal sphincter. It is worth to comment that, before beginning any kind of biofeedback or rehabilitative treatment, the physicians have to assess and verify the patient’ proprioceptive consciousness of the anal sphincter, namely the capacity of select it for the contraction. The authors, in their coloproctological evaluation, along with the Cleveland Clinic Fecal Incontinence score, considered the anamnesis of previous anal surgery, of hysterectomy and of previous vaginal deliveries; all predictive factors influencing the effectiveness of the rehabilitative treatment.

Summarily, in the paper is reported that all patients were informed about the objective of biofeedback and of anatomy of the pelvic floor. Even though a such pretreatment teaching session, as reported by the Authors, is commendable and desirable, often it is not enough. The physicians, in fact, should assess the level of patients ‘acquisition of this fundamental information. The mere description of the anatomy and physiology of anal canal, i.e. that the anal sphincter contraction and relaxation obstruct and promote defecation respectively, does not imply a full comprehension and acquisition of the information. In this setting, it is of paramount

importance to assess the proctological patient in a broader conception: the clinical-physiatric evaluation⁽²⁾. One of its key tool is the evaluation of the muscular synergies. This latter test assesses properly the patient’ acquisition and the ability to put into practice of the abovementioned anatomical and functional information. In case of request of anal sphincter contraction, in fact, the recruitment of agonist muscles, such as the gluteus and abductor groups, can be caused by the patient’s incapacity to selectively recruit the correct muscles for the requested order. Vice versa, the identification of antagonist muscles (abdominal muscles) during the anal sphincter contraction phase represents even a conflict between the abdominal and perineal muscles⁽³⁾. Therefore, in case of patient’ inability of anal contraction, the mere explanations of anatomy and physiology of pelvic floor is reductive.

In the mentioned paper, almost the 50% of patients failed the biofeedback treatment, but the Authors not wondered whether the patients, before beginning the rehabilitative treatment, have reached an adequate selectivity of contraction or have acquired a correct knowledge of the anatomical and physiological notions. Probably, in case of presence of muscular synergies without selective contraction of anal sphincter, a high percentage of the failed patients would have benefited in a previous electrostimulation treatment in order to acquire consciousness and sensitization of the patient to the anal area, or simply the effect of intervening per se, as suggested by Kamm et al.⁽⁴⁾

Rehabilitation treatment should start with a patient’s re-educational phase, in order to clearly explain and clarify that chest, abdomen, vertebral column and perineum acts as different parts of a same whole (an imaginary cuboid), in patients with defecation disorders⁽⁵⁾. Therefore, in this setting, the abovementioned abnormal concomitant contraction of abdominal muscles, during anal sphincter contraction, is the demonstration that distant areas from pelvic floor contribute to its function, and physicians and patients should necessary think and imagine the human body in a unitary way. This clinical-physiatric approach aims to improve an altered bodily function; it is not merely cognitive, while it prepares the patient toward an active, rather than a passive, role with a deep participation during the healing process.

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In conclusion, along with the predictive reported factors of the study, before start any kind of rehabilitative treatment for incontinence, the evaluation of muscular synergies should not be neglected since it might be considered one of the most important predictive parameters of success of the therapy.

Authors' contribution

Gambardella C participated substantially in the drafting and editing of the manuscript. All authors contributed significantly to the present research and reviewed the entire manuscript.

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