



Journal of Coloproctology

www.jcol.org.br



Original Article

Immediate effects “biofeedback” and electrostimulation anorectal in the treatment of contraction of muscle paradoxical puborectal in women with evacuation blocked

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ARTICLE INFO

Article history:

Received 14 August 2017

Accepted 9 October 2017

Available online xxx

Keywords:

Constipation

Pelvic floor

Rehabilitation

Conservative treatment

ABSTRACT

Objective: This study was conducted to evaluate the effects of “biofeedback” (BF), electrostimulation (ES), and of the high-fiber diet associated with behavioral therapy in women with obstructed evacuation and paradoxical puborectalis contraction and to compare the results among these three modalities.

Method: Thirty-one women were evaluated who fulfilled the Rome III Criteria, and with an electromanometric test positive for the presence of contraction in the evacuation maneuver. These patients were randomized into three groups: group I – conventional treatment of constipation, group II – conventional treatment of constipation associated with biofeedback and group III – conventional treatment of constipation associated with electrostimulation. At the beginning of this study and after six weeks, subjective and objective parameters of the anorectal function were evaluated using the Wexner constipation scoring system, the Bristol scale, an visual analogical scale, and anorectal electromanometry.

Results: All patients demonstrated improvement in bowel satisfaction, stool frequency, effort and feeling of incomplete evacuation, stool-type modifications, and improvement in the quality of life. On examination, there was increased mean pressure of voluntary contraction in group III ($p=0.043$), decreased sensitivity threshold in group II ($p=0.025$) and III ($p=0.012$) and decreased maximum rectal capacity in group II ($p=0.005$). Only 19.4% ($n=6$) had their dynamic defecation normalized, and 80.6% ($n=25$) expressed clinical, non-instrumental, improvement.

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<https://doi.org/10.1016/j.jcol.2017.10.001>

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Conclusion: The conventional treatment of constipation, biofeedback and electrostimulation show a significant subjective improvement in symptoms of obstructed evacuation and in quality of life, regardless of the reversal of the paradoxical puborectalis contraction.

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Efeitos imediatos do “biofeedback” e da eletroestimulação anorretal no tratamento da contração paradoxal da musculatura puborretal em mulheres com evacuação obstruída

R E S U M O

Palavras-chave:

Constipação intestinal
Assoalho pélvico
Reabilitação
Tratamento conservador

Objetivo: Verificar os efeitos imediatos do “biofeedback” (BF), eletroestimulação (EE) e da dieta rica em fibras associada à terapia comportamental em mulheres com sintomas de evacuação obstruída e com contração paradoxal da musculatura puborretal e comparar os resultados entre as três modalidades.

Métodos: Foram avaliadas 31 mulheres, que preenchiam os critérios de Roma III e que, ao exame eletromanométrico, apresentaram contração à manobra evacuatória. Essas pacientes foram randomizadas e sorteadas em três grupos: grupo I - tratamento convencional da constipação (TCC), grupo II - TCC associado ao BF, e grupo III - TCC associado à EE. No início do estudo e após seis semanas, foram avaliados os parâmetros subjetivos e objetivos da função anorretal, por meio do sistema de pontuação para constipação de Wexner, escala de Bristol, escala analógica visual e eletromanometria anorretal.

Resultados: As pacientes demonstraram melhora da satisfação intestinal, frequência evacuatória, esforço e sensação de evacuação incompleta, modificações do tipo de fezes e melhora da qualidade de vida. Houve aumento da pressão média de contração voluntária no grupo III ($p = 0,043$), diminuição do limiar de sensibilidade nos grupos II ($p = 0,025$) e III ($p = 0,012$) e diminuição da capacidade retal máxima no grupo II ($p = 0,005$). 19,4% ($n = 6$) normalizaram a dinâmica evacuatória, e 80,6% ($n = 25$) expressaram melhora clínica e não instrumental.

Conclusão: O TCC, BF e a EE apresentam melhora subjetiva significativa dos sintomas da evacuação obstruída e da qualidade de vida, independente da reversão da contração paradoxal da musculatura puborretal.

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Introduction

Intestinal constipation (IC) involves aspects related to stool frequency and bowel movement, in association with several symptoms related to stool expulsion. In order to standardize its characterization, the Rome Criteria III¹ were established, defining as constipated patients those subjects with evacuation effort, a sensation of incomplete evacuations, hardened stools or cymbals, less than three bowel movements per week, sensation of exit obstruction, manual maneuvers' facilitators, with a potential presence of soft stools if in use of laxatives, and with insufficient criteria for irritable bowel syndrome.

According to pathophysiology, IC can be classified into colic and rectal (evacuation obstruction) types, or as an association of these conditions. IC presents a multifactorial etiology, involving dietary, anatomical, functional, psychological, and sociocultural aspects.^{2,3} Evacuation disorders are known to result from anatomical and functional alterations in the posterior compartment, being related to disorders such as rectocele, intussusception, enterocele, perineal dehiscence, absence of

sphincter relaxation, or paradoxical contraction of voluntary sphincter muscles (anismus).⁴ These changes promote symptoms such as inability to evacuate the rectal volume, a sensation of a rectum filled with feces, rectal pain, pelvic diaphragm dehiscence, and evacuation effort.^{5,6}

The treatment of this disorder is multifactorial, including a fiber-rich diet, behavioral therapy, laxatives, pelvic-perineal kinesiotherapy, biofeedback (BF) and electrostimulation (ES).^{7,8} Some studies report success rates in 40–80% of cases.^{9,10} Although BF is an important resource in the treatment of pelvic floor dysfunctions, there are numerous controversies due to the use of different analytical methods in subgroups of non-homogeneous patients, in addition to non-standardized protocols.

Although the mechanisms of action of these methods are still only partially known, the improvement demonstrated by the patients treated, translated by the modification of the subjective symptoms of constipation and by the impact on their quality of life, encourages their use in the treatment of anorectal dysfunctions. Although there are studies that individually use BF and ES in the treatment of paradoxical contraction of

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