VẬT LÝ TRỊ LIỆU TRONG ĐIỀU TRỊ TÁO BÓN

Ths BS Nguyễn Hoàng Duy

Các nhóm tiếp cận điều trị táo bón

- Điều trị bằng thuốc (bao gồm điều chỉnh các thuốc gây táo bón)
- Phẫu thuật
- Vật lý trị liệu (bao gồm điều chỉnh lối sống)
- Liệu pháp sinh học

VLTL trong điều trị táo bón

- Điều trị không có dụng cụ hỗ trợ
  - Hoạt động thể dục
  - Massage bụng
- Điều trị có dụng cụ hỗ trợ
  - Tập phản hồi sinh học
  - Kích thích thần kinh cùng
  - Kích điện
  - Kích thích từ ngoài cơ thể

HOẠT ĐỘNG THỂ CHẤT
Physical exercise

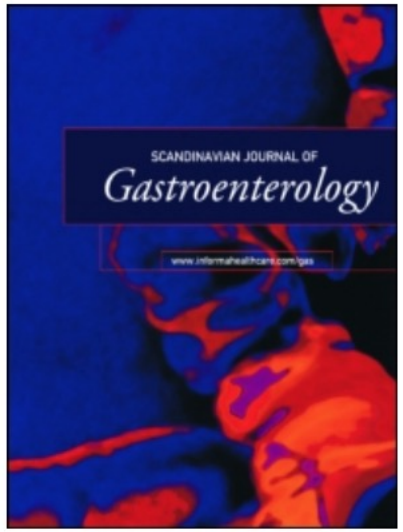
13. Statement: A low level of physical activity is associated with chronic constipation.

- Grade of recommendation: 2.
- Level of evidence: C.
- Experts' opinions: completely agree (7.1%), mostly agree (67.9%), partially agree (14.3%), mostly disagree (10.7%), completely disagree (0%), and not sure (0%).

- Hoạt động thể chất giúp giảm táo bón
- Người lớn tuổi:
  - Táo bón liên quan với việc ít vận động
  - Nguy cơ táo bón liên quan với mức độ vận động
- Hoạt động thể chất cường độ vừa đến cao giúp rút ngắn thời gian phân di chuyển trong đại tràng (Colon transit time) ở nữ giới, nhưng không xảy ra ở nam giới.
- Hoạt động thể chất mức độ vừa đến nặng (20-60 phút, 3-5 ngày/tuần) cho thấy cải thiện triệu chứng táo bón và chất lượng sống ở BN IBS.

(1) Guidelines for the Diagnosis and Treatment of Chronic Functional Constipation in Korea, 2015 Revised Edition.
J Neurogastroenterol Motil, Vol. 22 No. 3 July, 2016

HOẠT ĐỘNG THỂ CHẤT
Physical exercise



Scandinavian Journal of Gastroenterology

Exercise therapy in patients with constipation: a systematic review and meta-analysis of randomized controlled trials

Ruitong Gao, Yujia Tao, Changli Zhou, Jinwei Li, Xige Wang, Lei Chen, Feng Li & Lirong Guo

Table 1. Characteristics of studies included in this systematic review and meta-analysis.

Article	Publication Year	Country	Age/years (mean age/age range)	Sample (IG/CG)	Type/frequency of intervention (IG)	(CG)	Program duration	Measurements	Results
Tantawy et al. [24]	2017	Egypt	IG: 33.25 ± 5.23 CG: 34.75 ± 4.43	62/63	Walking, 60 min, 3/week Total: 180 min/week	Usual care	12 weeks	PAC-SYM PAC-QOL SF-36	IG showed greater improvement in the PAC-SYM, PAC-QOL and quality of life
Zhou et al. [25]	2015	China	42 ± 6.8	17/17	24-Pattern Shadowboxing, 60 min, 3/week Total: 180 min/week	Usual care	12 weeks	Two or more of the following complaints: straining, lumpy or hard stools, feeling of incomplete evacuation, fewer than three bowel movements in a week	IG showed improvement of gastrointestinal functions
Yi et al. [26]	2014	China	IG: 68 CG: 66	35/35	Walking: 9000 step/day	Maziren pills	4 weeks	Straining, lumpy or hard stools, feeling of incomplete evacuation, fewer than three bowel movements in a week	IG had a higher total effective rate than the controls
Jing et al. [27]	2014	China	74. 96 ± 7. 07	38/37	Physical movement, 40–60 min, 7/week Total: 280–420 min/week	Usual care	8 weeks	Chronic functional constipation severity rating scale MUNSH	Symptoms of constipation, general well-being, PA, NA, PE and NE were significantly improved in IG ($p<.01$)
Ma et al. [28]	2011	China	45–55	43/40	Baduanjin, 60 min, 5/week Total: 300 min/week	Usual care	12 weeks	Rome II SF-36	Significant improve the symptoms of constipation, BP, GH, VT, RE and MH of IG ($p<.05$)
John et al. [29]	2010	USA	IG: 85.84 ± 9.42 CG:86.15 ± 10.46	58/54	Exercise (repeat sit-to-stands and walking or wheelchair propulsion) 20 min, 5/week Total: 100 min/week	Usual care	12 weeks	Fewer than three bowel movements in a seven-day period	Fewer intervention subjects meeting constipation criterion (Pr = 0.000)

Article	Publication Year	Country	Age/years (mean age/age range)	Sample (IG/CG)	Type/frequency of intervention (IG) (CG)		Program duration	Measurements	Results
Chin A Paw et al. [30]	2006	Netherlands	IG: 81.3 ± 5.7 CG: 81.3 ± 4.4	41/35	Resistance training: 40–60 min, 2/week Total: 80–120 min/week	Educational program: 45–60 min, 2/week	24 weeks	Not taking laxatives and had two or more of the following complaints: straining, lumpy or hard stools, feeling of incomplete evacuation, fewer than three bowel movements in a week	Neither of the exercise programs had an effect on the percentage of subjects with constipation or taking laxatives
De Schryver et al. [31]	2005	Netherlands	IG: 59.09 ± 1.9 CG: 53.79 ± 2.1	25/18	Brisk walking: 30 min, ≥2/week Total: 60 min/week	Normal lifestyle	12 weeks	Rome I	In IG, the number meeting Rome criteria or constipation decreased significantly ($p<.001$)
Wu et al. [32]	2000	China	IG: 48 ± 16.0 CG: 47 ± 15.1	32/30	Walking, 20–30 min, 7/week Total: 140–210 min/week	Auricular acupuncture	30 days	Straining, lumpy or hard stools, feeling of incomplete evacuation, fewer than three bowel movements in a week	The efficacy of the IG was better than that of the CG, after 30 days of intervention and 12 months of follow-up

BP: bodily pain; CG: control group; GH: general health; IG: intervention group; MH: mental health; MUNSH: Memorial University of Newfoundland Scale of Happiness; NA: negative affection; NE: negative experience; PA: positive affection; PAC-QOL: The Patient Assessment of Constipation Quality of Life; PAC-SYM: The Patient Assessment of Constipation-Symptom; PE: positive experience; PF: physical functioning; RE: role-emotional; SF-36: The Short Form-36; VT: vitality.

MASSAGE BỤNG

Journal of Bodywork & Movement Therapies (2011) 15, 436–445

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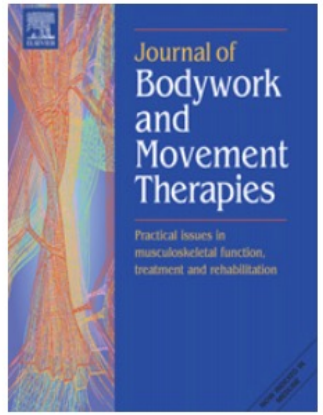

The use of abdominal massage to treat chronic constipation

Marybetts Sinclair, LMT*

MASSAGE BỤNG

BN táo bón có liên quan đến kéo dài thời gian phân di chuyển trong đại tràng

Text box 1. Factors that interfere with the timely movement of abdominal contents through the digestive system

More than one factor may be present in the same patient.

- *** Lifestyle-related factors such as a diet that is low in fiber, regularly ignoring the urge to defecate, and chronic dehydration (Older people may drink less in an attempt to control incontinence). Another factor, low muscle tone due to inactivity, slows gastrointestinal transit time (Cordain, 1986; Oettle, 1991; Peters et al., 2001; Petticrew et al., 2001; Davies et al., 2009; De Oliveira and Burrini, 2009).
- *** Aging-related changes including the loss of enteric neurons and increased susceptibility to the adverse effects of medications.
- *** Long-term use of stimulant laxatives, which can result in decreased bowel contractions and increased constipation (Petticrew et al., 2001).
- *** Dysfunction in the pelvic floor muscles secondary to childbirth or hysterectomy, resulting in an immobile perineum and decreased descent of the pelvic floor during defecation (Rao, 1998) The longitudinal coat of muscle of the distal colon, which becomes complete in the sigmoid colon and rectum, is continuous with perineal muscle and fascia.
- *** Medical conditions such as hypothyroidism, multiple sclerosis, Parkinson's disease, Crohn's disease, diabetes, celiac disease, irritable bowel syndrome, stroke, diverticulosis, cerebral palsy, and spinal cord injury, which can cause either sluggish intestinal contractions or chronic colonic spasm, both of which can slow down the movement of stool (Talley et al., 2003).
- *** Use of constipating medications, including opiates, diuretics, antidepressants, antacids, antihistamines, iron preparations and anticonvulsants. Opiates, for example, decrease peristaltic contractions as well as the urge to defecate. Use of aspirin, acetominaphen and non-steroidal anti-inflammatory medications is also associated with chronic constipation (Chang et al., 2007).
- *** Mechanical obstruction: The small or large intestines may compressed by tumors, hernias, prolapsed internal organs, chronic colonic spasm, the weight of a fetus during pregnancy or an accumulation of hard, dry feces. Intestinal adhesions which can narrow the lumen of the bowel may result from previous abdominal infections, blunt abdominal trauma, endometriosis, radiation treatment of the pelvis, and abdominal surgery, especially that of the large intestine, appendix or uterus (Barral, 2005; Dondelinger, 2004; Klingele, 2005; McKay and Hirano, 1998; Opoien et al., 2007) (see Figures 4 and 5).
- ** Emotional stress. The gastrointestinal tract contains both sympathetic and parasympathetic nerve fibers, and under emotional stress, sympathetic function predominates, contracting sphincters, constricting digestive system blood vessels and inhibiting both motility and secretion. Stimulation of the parasympathetic nerve supply of the colon increases its motor activity, while sympathetic stimulation decreases it. Conditions such as anxiety, depression and cognitive impairment may contribute to constipation ((Stam et al., 1997, Petticrew et al., 2001)) Victims of physical and/or sexual abuse during childhood are more likely to suffer from chronic constipation than control subjects who did not experience abuse. (Walling et al., 1994) Numerous case reports are available of successful treatment of constipation when the sole intervention was psychiatric (Clarke, 2007; Devroede et al., 1989; Drossman et al., 1990; Jarrell, 2003; Latimer, 1983; McMahon and Koltenburg, 2006; Mayer, 1993; Shorter, 1993).

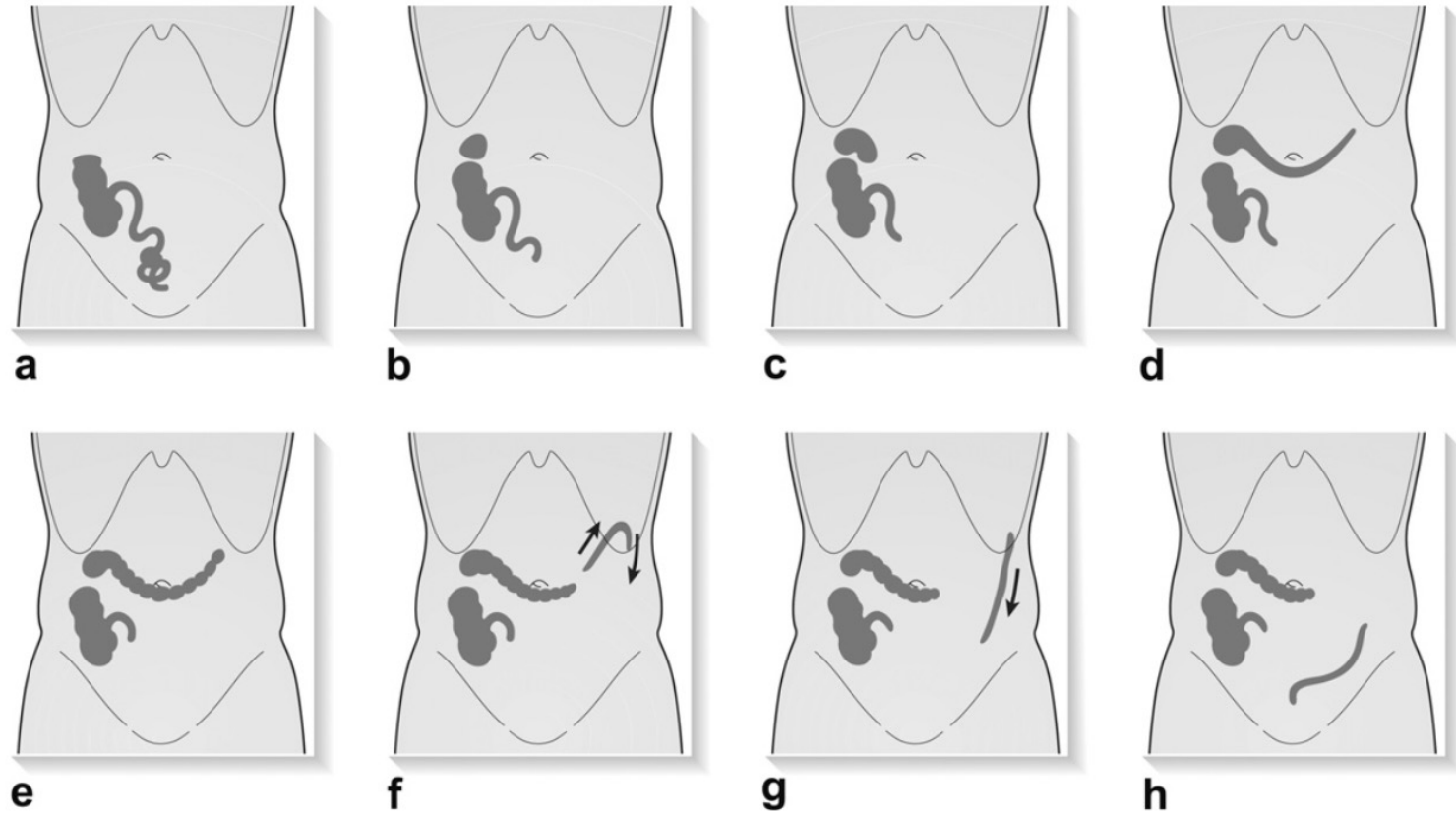

Figure 3 "Stages of a Mass Movement of the Colon", adapted from Hertz, A. F., Am J Physiolo 47: 57—65, 1913 A. The subject (an adult male with no gastrointestinal pathology) took 2 ounces of barium sulfate suspension along with breakfast. Five hours later, fecal material (the shadows at the end of the ileum, the caecum and the ascending colon) was visible. B. The subject then ate a lunch of meat, vegetables and pudding. The end of his ileum emptied rapidly during the meal, while his caecum and ascending colon filled. Towards the end of the meal, a large round mass at his hepatic flexure became cut off from the rest of his ascending colon. C. Immediately after the meal was finished, some of the mass moved slowly around his hepatic flexure. D. The diameter of the separated portion suddenly became much smaller and the large round shape changed into a long narrow one which extended from his hepatic flexure almost to his splenic flexure. E. After a few seconds, the long narrow shape developed haustral segmentation. F. Five minutes later, the long narrow shape suddenly become more elongated and passed around his splenic flexure. G. The long narrow shape immediately passed down his descending colon H. The long narrow shape immediately passed into the beginning of his sigmoid colon

MASSAGE BỤNG

- Cơ chế giảm táo bón chưa được hiểu hoàn toàn, nhưng có lẽ do phối hợp kích thích và thư giãn
- Áp lực trực tiếp trên thành bụng thay đổi liên tục khi nhấn và buông trên từng đoạn ruột, bóp méo kích thước ruột
  - Kích hoạt các thụ thể co giãn, làm tăng phản xạ dạ dày ruột và kích thích co bóp ruột non và trực tràng
  - Kích thích phản xạ bản thể (somato-autonomic)
- Kích thích hệ thần kinh giao cảm giúp giảm căn cơ bụng, tăng hoạt động, tang tiết dịch tiêu hoá và giãn các cơ thắt của đường tiêu hoá

MASSAGE BỤNG

- Hiệu quả rõ ràng, ở cả 2 nhóm giảm trương lực cơ khi kích thích và căng cơ khi thư giãn.
- Kích thích nhu động ruột
- Giảm thời gian lưu thông đại tràng (CTT)
- Tăng tần suất đi tiêu
- Giảm cảm giác khó chịu và đau khi táo bón

Kĩ thuật nào?

Thực hiện bao lâu thì có kết quả?

Dùng lực như thế nào để có hiệu quả?

MASSAGE BỤNG

- Lặp lại nhiều lần đến khi có kết quả, có thể kéo dài thời gian thực hiện
- 1 nghiên cứu ở người lớn tuổi ghi nhận:
  - Giảm táo bón sau 10 ngày
  - Kéo dài 7 đến 10 ngày sau khi ngừng thực hiện
- 1 nghiên cứu khác với kĩ thuật Lama cho thấy hiệu quả khi thực hiện kĩ thuật đến 8 tuần
- Kĩ thuật dùng lực cũng thay đổi tuỳ kĩ thuật từ nhẹ với Lama và vừa với Preece

MASSAGE BỤNG

Text box 2. A Typical Swedish Massage of the Abdomen for Constipation

Contraindications include abdominal obstruction, abdominal mass, intestinal bleeding, abdominal radiation therapy, strangulated hernia and less than 6 weeks post-abdominal surgery.

1. Effleurage of the entire abdomen-10 times.
2. Effleurage of the rectus abdominis, external and internal obliques and transverse abdominis muscles-10 times each.
3. Kneading of the abdomen-3 times.
4. Clockwise effleurage over the presumed path of the colon-10 times.
5. Vibration of the small and large intestines-one minute, or more.
6. Repeat step 4.
7. Kneading over the presumed path of the colon, with the fist, heel of the hand or thumbs-one minute or more.
8. Petrissage over the presumed path of the colon-one time.
9. Vibration over the presumed path of the colon.
10. Repeat Step 4.

Techniques used in different studies varied to some extent: for example, Lamas et al. (2009) used primarily light-pressure effleurage of the abdomen for a total of 7 min, while Emly (2001, 2006) used moderate-pressure effleurage, kneading and vibration, for a total of 15—20 min, while Preece (2002) used propulsive massage, for a total of 10 min.

ĐIỀU TRỊ HÀNH VI – TẬP PHẢN HỒI SINH HỌC

Behavior therapy - Biofeedback

Hiệu quả ở BN táo bón do rối loạn hoạt động đại tiện

(defecatory disorder)

32. Statement: Biofeedback therapy is effective for treating constipated patient with defecatory disorders.

- Grade of recommendation: 1.
- Level of evidence: A.
- Experts' opinions: completely agree (55.6%), mostly agree (44.4%), partially agree (0%), mostly disagree (0%), completely disagree (0%), and not sure (0%).

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ĐIỀU TRỊ HÀNH VI – TẬP PHẢN HỒI SINH HỌC

Behavior therapy - Biofeedback

Có thể tập nhiều lần và an toàn, và có thể giúp giảm việc sử dụng các thuốc nhuận tràng (laxative)

33. Statement: Biofeedback therapy may be applied repeatedly and safely, and can reduce the usage of laxatives.

- Grade of recommendation: 2.
- Level of evidence: C.
- Experts' opinions: completely agree (34.6%), mostly agree (65.4%), partially agree (0%), mostly disagree (0%), completely disagree (0%), and not sure (0%).

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ĐIỀU TRỊ HÀNH VI – TẬP PHẢN HỒI SINH HỌC

Behavior therapy - Biofeedback

- Quá trình tập luyện lại để sự bất thường trong phối hợp (dyssynergic) các cơ sàn chậu và cơ hậu môn trực tràng
- Thông qua thiết bị nghe nhìn để tập các cơ sàn chậu dưới sự theo dõi bởi máy đo điện cơ (electromyography) và máy đo áp lực hậu môn (anal manometry)
- Bệnh nhân có thể nhận thức được bất thường hoạt động rặn trong quá trình giả lập hoạt động đại tiện theo diễn tiến thời gian thực tế (real-time) như làm thế nào để co cơ thành bụng và thả lỏng các cơ sàn chậu và hậu môn

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ĐIỀU TRỊ HÀNH VI – TẬP PHẢN HỒI SINH HỌC
Behavior therapy - Biofeedback

- Lựa chọn BN táo bón phù hợp để tập phẩn hồi sinh học?

- Tiên lượng kết quả tập phản hồi sinh học?

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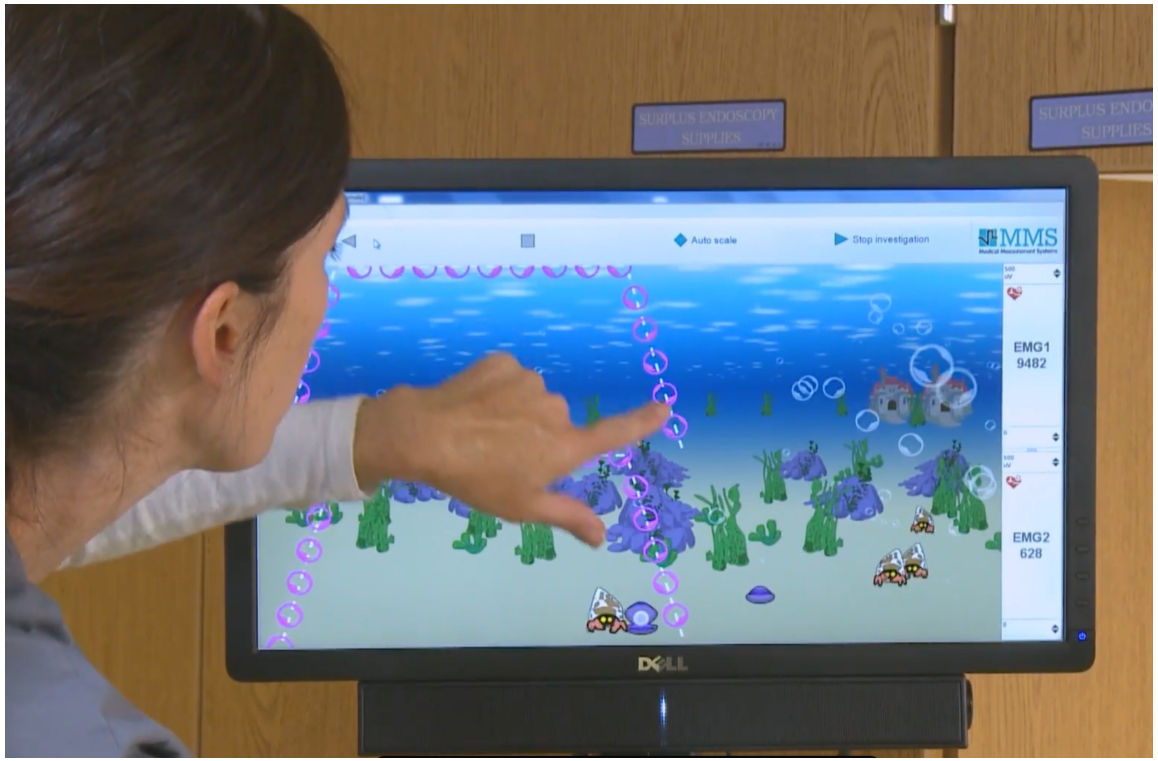
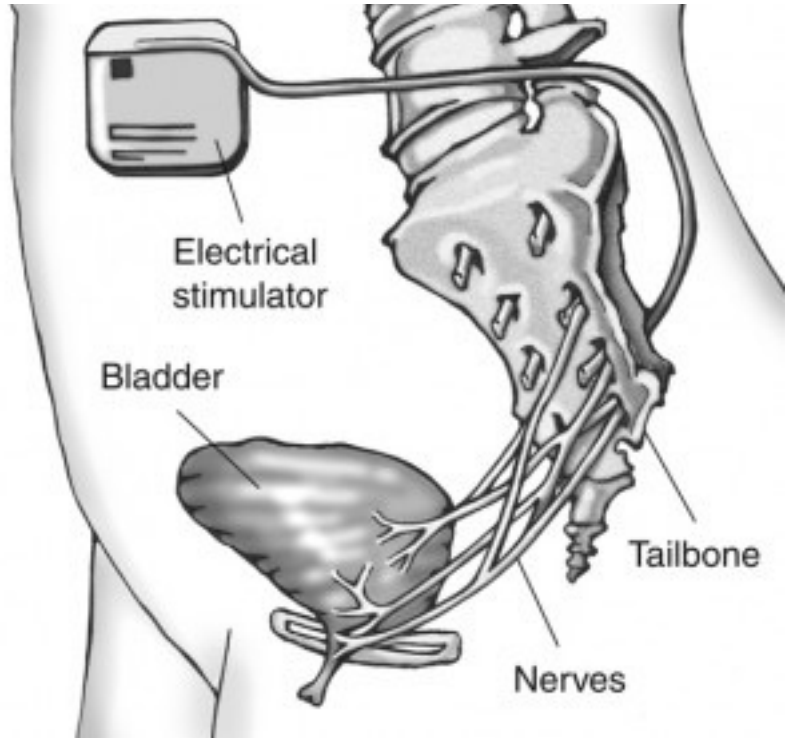
ĐIỀU TRỊ HÀNH VI – TẬP PHẢN HỒI SINH HỌC

Behavior therapy - Biofeedback



Kích thích thần kinh cùng

- Có thể hiệu quả điều trị táo bón khi các phương thức khác thất bại



Sacral nerve stimulation

Sacral nerve stimulation (SNS) may be effective in the treatment of chronic constipation when other approaches have failed.[200] SNS is a surgical treatment option such that, following peripheral nerve evaluation, external electrical stimulation is delivered via a temporary lead inserted percutaneously through the third sacral foramen to the S3 sacral nerve. Thirteen published studies were found reporting the use of SNS for constipation.[201] Ten studies involved adult subjects, including two double-blind crossover studies and three were retrospective reviews. SNS appears to be an effective treatment for constipation; however, research to date has been predominantly confined to small, low-level evidence studies with most lacking a coherent definition of constipation and SNS. Thus, it remains unclear which patients are most likely to benefit from the therapy.

Điều trị kích thích từ ngoài cơ thể

- Thay đổi vùng từ trường tạo ra kích thích điện ở vùng mô mong muốn
- BN táo bón có giảm nhạy cảm ở trực tràng hoặc bất thường phôi ruột sau (hindgut)

Extracorporeal magnetic stimulation therapy

Extracorporeal magnetic stimulation therapy (EMST) has been reported to offer the potential for therapeutic benefit for a subset of constipated patients.[202-204] EMST, which uses current-changing magnetic fields, allows the induction of electrical stimulation in the desired deep tissue. The mechanism of EMST in the S2-S3 dermatomes for constipation is unclear. One study reported that EMST was clinically useful in STC, particularly among constipated patients with rectal hyposensitivity or the transit pattern of hindgut dysfunction.[202]

Điều trị kích điện

- Phương thức điều trị hỗ trợ
- Nhóm BN táo bón
  - Giảm nhạy cảm trực tràng
  - Trơ với tập phản hồi sinh học

Electrical stimulation therapy

Electrical stimulation may be considered as an adjuvant therapeutic modality for the management of constipation with rectal hyposensitivity, or among some patients refractory to biofeedback therapy.[205-207]


THANK YOU FOR YOUR ATTENTION.
HAVE A GREAT DAY!