Effectiveness Of Abdominal Massage and Visceral Manipulation in Adults with Constipation. A mini-review

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ABSTRACT

Chronic idiopathic constipation is a common functional bowel condition marked by a significant influence on the quality of life. Many patients are dissatisfied with laxatives due to concerns surrounding efficacy and safety. The long-term usage of this medication has been associated with a range of adverse effects indicating a need for other treatment options. Manual therapy techniques may be effective for the treatment of functional constipation such as abdominal massage and visceral manipulation. Abdominal massage techniques involve stroking, effleurage, kneading, and vibration; leading to increased local and visceral circulation, stimulating peristalsis, decreasing colonic transit time, increasing the frequency of bowel movements in constipated patients, and decreasing the feelings of discomfort and pain that accompany constipation. Therefore, abdominal massage can improve quality of life because it reduces the severity of constipation and improves bowel function parameters. Additionally, visceral mobilization is a gentle, manual treatment that targets the internal organs. This form of treatment for constipation is effective because the structures surrounding the peritoneal bowels may have lost their normal capacity for resilience. Thus, the goal of visceral manipulation is to restore the movement of abdominal organs and reestablish the functional characteristics of the tissues involved, modulate intestinal function, and reduce colon tension. Although there are studies suggesting that abdominal massage and visceral manipulation are helpful treatments for constipation, the overall evidence is weak, and more studies are needed.

Keywords :Constipation, Abdominal Massage, Visceral Manipulation, Quality Of Life

Abbreviations

Chronic idiopathic constipation (CIC), Visceral manipulation (VM), quality of life (QOL), Patient Assessment of Constipation- Quality of Life Questionnaire (PAC-QOL)

INTRODUCTION

Chronic idiopathic constipation (CIC) is one of the most common gastrointestinal disorders, with a global prevalence of 14%. It is commoner in women and its prevalence increases with age (Black & Ford, 2018). After excluding secondary causes of constipation, chronic idiopathic or primary constipation can be classified as functional defecation disorder (Sharma& Rao, 2016). Patients with CIC usually present with symptoms including hard or lumpy stools, reduced frequency of defecation, a sensation of incomplete evacuation or blockage, straining at stool, and some may also report abdominal pain and bloating. In general, symptoms are deemed to be chronic if they have been present for at least 3 months (Black& Ford, 2018). The first line of intervention for functional constipation often includes increasing fluid and fiber intake in addition to lifestyle modifications. Unfortunately, these modifications are not always successful for people with constipation. Laxatives are often recommended for patients who do not respond to dietary and lifestyle modifications and their usage, along with lifestyle changes, is currently supported by The National Institute for Health and Care Excellence (NICE)guidelines for constipation in children and young people. Despite this, many patients are dissatisfied with laxatives due to concerns surrounding efficacy and safety and long-term laxative usage has been associated with a range of adverse effects indicating a need for other treatment options (Erdrich et al., 2019). However, long-term use of some laxatives may be associated with harmful side effects including increased constipation and fecal impaction.

Abdominal massage increases local and visceral circulation, reduces abdominal muscle tension, facilitates digestion, stimulates colonic movements by providing peristaltic stimulation, and therefore reduces the transit time of stool through the colon. In abdominal massage, with the pressure applied manually on the anterior abdominal wall, the colon is compressed between the fingers and the posterior abdominal wall, thus softening the stool and facilitating its progress in the colon (Doğan et al., 2022). Visceral manipulation (VM) is a gentle, manual treatment targeting the internal organs. VM dates back to prerecorded times in many Asian and European medicinal cultures. Varying levels of expertise and skill are required depending on the technique. Abdominal massage techniques involve more general, less targeted manual techniques, such as stroking, effleurage, kneading, and vibration, which are needed for more targeted manual treatments. Patients with chronic constipation can learn abdominal massage techniques for long-term self-management of their condition. Abdominal massage emphasizes the clockwise movement of certain strokes along the path of the colon (Lopez. 2022).

For evaluation and outcome instruments:

1. Constipation Severity Instrument: CSI evaluate the frequency, consistency, and ease of evacuation of stools, in addition to measuring associated constipation symptoms (Varma, M. G. et al.,2008)

2. Constipation Assessment Scale: The constipation assessment scale is an eight-item scale that assesses the presence and severity of constipation (McMillan et al., 1989).

3. Patient Assessment of Constipation- Quality Of Life (PAC-QOL) Questionnaire: the PAC-QOL is a comprehensive and valid reported assessment of the impact of constipation symptoms. The original PAC-QOL paper contains 28 items grouped into 4 subscales covering: Worries and concerns (11 items), Physical discomfort (4 items), Psychosocial discomfort (8 items), and

Satisfaction of treatment (5 items) (Nikjooy et al.2018).

position trackers and a head-mounted display. The trackers sense the movements of the user and report them to the visualization system, which updates the images for display in real time. However, psychology and neuroscience define VR as an advanced form of human-computer interface that allows the user to interact with and become immersed in a computer-generated environment in a naturalistic fashion (4). Physical fitness in children and adolescents is considered an important indicator of health (5). Few studies have analyzed the relationship between physical fitness and quality of life (QOL) in children. A positive relationship between aspects of QOL and cardiorespiratory fitness (CRF) has been observed in children and adolescents (6). Aerobic exercises have little effect on gross measures such as body weight and body mass index (BMI) but are usually associated with favorable changes in body composition (7). Aerobic exercise may decrease body fat, and attenuate the loss of lean body mass seen in children during dietary energy restriction (8). Aerobic activities, such as walking, have been suggested to improve aerobic physical fitness, quality of life, and mood disorders (9). However, due to monotony and the difficulty of performing weight-bearing activities, adherence to these types of activities can be low, especially among obese children (10).

DISCUSSION

Clinical trials have confirmed abdominal massage can improve chronic constipation (Tang et al., 2020). In literature, the PAC-QOL is a widely used outcome measure to evaluate the QoL associated with constipation. In a randomized controlled trial, abdominal massage applied for 4 weeks in individuals with opioid-related constipation decreased the PAC-QOL score by 20% (Doğan et al.,2022). From clinical experience, visceral manipulation is a useful intervention in the treatment of constipation(Neto et al., 2020) A significant improvement in the severity of constipation, colon transit time, and QOL of individuals with chronic constipation using a visceral mobilization protocol conducted in six sessions over a four-week period (Brugman et al., 2010). In a 2020 review of the literature published in the journal Bezmialem Science, abdominal massage was shown to help manage abdominal pain associated with constipation. The technique involves stroking and kneading the abdomen in a consistent pattern and is often used during therapy sessions (X. Gu et al,.2023).

Abdominal massage aims to: (a) promote intestinal peristalsis; (b) improve the speed of gastrointestinal peristalsis, which in turn speeds up the discharge of gastrointestinal contents; (c) enhance the secretion of digestive secretions, which helps reduce the heavy intestinal absorption of moisture and in turn softens feces to aid easier discharge; (d) stimulate the vital energy of the human body and adjust the balance of Yin and Yang, which in turn makes vital energy flow outside the pulse and prevents the invasion of diseases (Wang et al,.2020).

Visceral mobilization is submitted to mobilize the ascending colon, descending colon, and sigmoid colon while the patient is in the supine position, knees flexed, feet supported, and abdomen exposed with contact to the region to be treated, leading it in the direction of immobility, with pressure maintained for one minute on each region with intensity based on the sensitivity to tension observed on the feedback of the individual or until the release of tensed area, in the present investigation led to (a) Improvement in intestinal mobility; (b) Reduction in the adverse effect on the excitability of the nervous system through sensory afference; (c) Rebalance of the autonomic nervous system and consequent improvements in intestinal function and symptoms. (d)

Significant improvements in intestinal symptoms (I.e., frequency of bowel movements, abdominal pain/discomfort, difficulty eliminating stools, sensation of intestinal swelling or distention, difficulty eliminating gas, sensation of incomplete bowel movement, and anal pain during bowel movement) and static balance (Neto et al., 2020).

Based on (Orhan et al., 2020) study, a 4-week connective tissue manipulation or abdominal massage program may be effective for the management of chronic constipation when combined with usual bowel care. However, no significant differences were found in the severity and symptoms of constipation and QoL between connective tissue manipulation and abdominal massage groups. Healthcare providers should be attentive that connective tissue manipulation or abdominal massage can be integrated into bowel rehabilitation programs based on the characteristics of the patients. Although there are studies to suggest abdominal massage and visceral manipulation are helpful treatments for digestive problems, the overall evidence is weak. However, this lack of evidence doesn't necessarily mean it doesn't work. Rather it means more studies are needed. The small amount of evidence out there suggests that visceral manipulation might be slightly more effective than massage. Both seem to be low risk. They are non-invasive and considered low-cost compared to many medical treatments. Abdominal massage and visceral manipulation might have a place in the treatment of functional constipation.

CONCLUSION

Compared to abdominal massage, visceral mobilization can show its advantage faster according to the time frame; which includes increasing defecation frequency, reducing defecation time, alleviating symptoms such as defecation difficulty, pain, bloating, and sensation of incomplete evacuation, and positively impacting the QOL. Abdominal massage easier for application and can be self-taught. Both seem to be effective, non-invasive, and considered low-cost compared to other medications used for the treatment of chronic idiopathic constipation.

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