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Visceral Manipulation: A Manual Therapy Technique for Relieving Constipation

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An estimated 4 million people in the United States experience constipation — the most common gastrointestinal (GI) complaint caused by uncomfortable or infrequent bowel movements, typically less than 3 times per week. In fact, constipation accounts for 2.5 million doctor visits annually.[1]

Many factors contribute to constipation, such as lack of exercise, dehydration, insufficient dietary fiber intake, and overuse of laxatives, which may trigger side effects, such as increased constipation and fecal impaction.[2]

Traditional recommendations to treat constipation include:

- dietary changes or over-the-counter supplementation to increase dietary fiber intake
- laxatives
- pharmacological agents to reduce inflammation and stimulate peristalsis
- hydration
- regular exercise
- biofeedback to retrain the puborectalis muscle (causing anorectal dysfunction) or the pelvic floor muscles (causing levator ani syndrome)[1,4,5]
- yoga to release the digestive organs, improve circulation, and stimulate peristalsis and defecation[6]

However, while the aforementioned approaches may alleviate the symptoms of constipation, they may not completely address underlying factors.

External or internal factors that increase inflammation can also play a role in developing constipation. External factors include mechanical traumas from car accidents (including forces transmitted through the seat belt), surgical scarring, repetitive body movements, pregnancy, and other injuries. Internal factors include infections, chronic emotional stress, medication side effects, and food allergies/sensitivities.[3]

The inflammation that results from these external and internal factors can lead to GI dysfunction or dysmotility, leading to constipation. Inflammatory processes dry out body tissues, decreasing the ability of the internal organs to slide or glide within their environment and allowing the formation of adhesions that affect organ functionality.[3]

This is where manual therapy — more specifically, visceral manipulation — comes into play.

What Is Visceral Manipulation?

Visceral manipulation (VM) is a gentle, manual treatment targeting the internal organs.[3] VM dates back to prerecorded times in many Asian and European medicinal cultures.[7] Many different approaches fall under the umbrella term of VM, including abdominal massage and osteopathic manipulative treatment (OMT).

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 do not necessarily entail advanced anatomical knowledge, specific hand placements, or evaluation skills, 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.[8]

OMT requires specific hand placements and in-depth anatomical knowledge, especially of the supportive ligaments and orientation of the organs. A trained practitioner applies a specific amount, direction, duration, and depth of pressure until a response is detected.

To achieve optimal results, skilled practitioners assess the body's tissues using hands-on "listening techniques" to identify lines of tension throughout the body (general listening) and pinpoint the area of greatest mechanical restriction (local listening).[3,7,9]

Jean-Pierre Barral, a French osteopath and physical therapist, developed specific VM techniques after decades of careful study of cadaver dissections, followed by trials of manual techniques on living patients. The dissections revealed common locations of organ adhesions and lines of tension, while application to patients with real problems proved the efficacy of the manual techniques.[3,7]

According to Barral, VM "recreates, harmonizes, and increases proprioceptive communication in the body to enhance its internal mechanisms for better health," which can "revitalize a person and relieve symptoms of pain, dysfunction, and poor posture."[3,9] In other words, VM improves the mechanical, neurological, and vascular functioning of the internal organs.[10]

The scope of VM encompasses far more than just digestive issues — also targeting lymphatic, vascular, respiratory, nervous, urogenital, and musculoskeletal problems.[9] This article focuses exclusively on VM for constipation.

How Is Visceral Manipulation Performed?

After general and local listening identify the area of greatest restriction, VM techniques target 2 different aspects[3,11]:

- **Mobility** – the ability of the internal organs to slide and glide in relation to surrounding organs and tissues in response to external forces, moving freely within their environment. Mobility indicates healthy organ function.
- **Motility** – the inherent energetic movement found within each internal organ tracing pathways of embryological development and organ migration centering around one point of equilibrium. The motility cycle involves 2 phases called inspir and expir.

During every treatment session, both mobility and motility are assessed and treated. Motility treatments typically follow mobility treatments.[3]

For cases of chronic constipation, techniques target areas of restriction found along or within the small and large intestines, rectum, and anus, especially[3]:

- the 5 abdominal sphincters (cardiac, pyloric, Sphincter of Oddi, duodenojejunal junction, ileocecal valve)
- the ascending, transverse, and descending colon
- the cecum, hepatic flexure, splenic flexure, and sigmoid colon where increasingly dehydrated intestinal contents have slower transits through these sharper angles of the large intestine

- the rectum and anal sphincter

Direct techniques push into the restrictive barrier, while indirect techniques place the tissues into a position of ease to allow them to unwind while following along with continued manual engagement. Patients may respond differently to these 2 approaches. If one fails, the other approach may prove more effective. Some techniques elongate sections of the ascending and descending colons.[3]

Literary Evidence

An updated review of literature published between 1999 and 2011 indicated that a growing body of evidence supported the use of abdominal massage to treat acute or chronic constipation.[2]

Two randomized, controlled trials confirmed the efficacy of abdominal massage — both as an immediate treatment for acute postoperative constipation and as a useful complementary treatment for patients with chronic constipation taking prescribed laxatives. Patients receiving abdominal massage reported decreased severity of GI symptoms, improved QOL, and increased number of bowel movements compared with the control groups.[12,13]

Two other randomized controlled trials validated the use of visceral manipulation for patients with specific clinical presentations associated with constipation — stroke and chronic low back pain.

One recently published trial compared VM plus physical therapy vs physical therapy alone in patients with chronic functional constipation after stroke. VM in the treatment group targeted abdominal sphincter inhibition and mobilization of the large intestine, while sham VM in the control group involved superficial touching over the intestines. The VM group experienced significantly decreased abdominal discomfort/pain, abdominal distention or bloating, difficulty defecating or passing gas, anal pain during defecation, and feelings of incomplete defecation. Notable improvements in static balance accompanied changes in constipation symptoms in the VM group compared with the control.[14]

The other study emphasized the link between GI dysfunctions and abdominal scarring and chronic low back pain (LBP). The viscerosomatic reflex explains the concept of referred visceral pain patterns. This reflex links visceral dysfunctions to corresponding spinal innervations, which, in turn, link to specific somatic tissues or joints.[15]

This study's experimental group received conventional physical therapy plus true VM, while the control group received conventional physical therapy plus placebo VM. True VM focused on the abdominal sphincters, sigmoid, colon, and global hemodynamic and liver manipulations. After 5 sessions, LBP improved in both groups; however, lumbar spinal mobility and specific functional activities significantly improved in the VM group compared with the control.[15]

Two pilot studies provided preliminary evidence that OMT effectively treats chronic constipation.

In one pilot study, 6 patients with chronic constipation received 6 OMT sessions over 4 weeks, which improved constipation severity (P <.01), overall symptoms (P <.01), QOL (P <.01), and colonic transit times (P <.01).[16]

In the second study, 21 women diagnosed with chronic functional constipation (n=11) or defecation disorders (n=10) received OMT weekly for 4 weeks. Following OMT, oro-anal transit time (P =.002) and segmental transit time for both the right (P =.005) and left (P =.009) colon decreased significantly. Stool frequency (P =.005) and stool consistency per the Bristol Stool Form Scale (P =.003) increased. Correspondingly, patients reported decreased bloating, abdominal pain, and use of drugs, while their QOL improved.[17]

A case study also detailed a comprehensive treatment plan, including VM, pudendal nerve manipulation, and neuromuscular reeducation of the pelvic floor muscles, which eased pain during defecation and urination,

reduced the need for MiraLAX by 50%, and resulted in normal stool formation without straining during elimination for a woman who failed conventional biofeedback therapy. [18]

Conclusion

Although more high-quality studies on the effects of VM on constipation are needed, current literature indicates that VM effectively decreases painful symptoms associated with constipation, decreases colon transit time, improves bowel movement frequency, and enhances patient QOL.

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