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VISCERAL TREATMENT OF THE REPRODUCTIVE VISCERA

TO ADDRESS SYMPTOMS OF AN UNKNOWN

PATHOLOGY.

HYPOTHESIS: REMOVING RESTRICTIONS OF THE OVARY, UTERUS AND FALLOPIAN TUBES CAN

ADDRESS MENSTRUAL CYCLE ASSOCIATED PATHOLOGY.

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Abstract

Headaches can be fascial, mechanical or hormonal in nature and when thought of from a fascial standpoint, the connective tissue system of the muscles is most commonly implicated. Looking at the structures from a different point of view, the visceral system, one can notice a connection of the organs to the fascial structures surrounding muscle. Diving further in to this connection, it is reasonable to hypothesize that an organ dysfunction can affect other structural mechanisms in the human body.

Visceral manipulation of the female reproductive system can correct menstrual cycle headaches by improving the mobility, motricity and motility of the organ through various techniques. This case study looks at the efficacy of visceral remodeling of the ovary, uterus and fallopian tube to positively affect headaches where were thought of in the past to be hormonal in nature.

Results show there is a positive effect on relieving the intensity of the headaches, during both ovarian-associated menstrual cycles. The treatment however, did not completely alleviate the headache and the client was still required to follow up with her physician. The efficacy of treatment depended on appropriate reporting of symptoms and may have been influenced by recent outside treatment which will be identified later in this study.

Introduction

The menstrual cycle is complex and is controlled by many different glands and hormones that these glands produce. The average length of a cycle is 28-29 days but can vary from one cycle to the next and consists of 4 phases. The phases are: menstruation, follicular phase, ovulation and the luteal phase (Better Health Channel, n.d.).

Menstruation: Is the elimination of the thickened lining of the uterus (endometrium) from the body. The fluid contains blood, cells from the lining of the uterus and mucus. The average length of a period is between three days and one week (Better Health Channel, n.d.).

Follicular Phase: Starts on the first day of menstruation and ends with ovulation. Prompted by the hypothalamus, the pituitary gland releases follicle stimulating hormone (FSH). This hormone stimulates the ovary to produce around five to 20 follicles (tiny nodules or cysts), which bead on the surface. Each follicle houses an immature egg. Usually, only one follicle will mature into an egg, while the others die. This can occur around day 10 of a 28-day cycle. The growth of the follicles stimulates the lining of the uterus to thicken in preparation for possible pregnancy (Better Health Channel, n.d.).

Ovulation: This is the release of a mature egg from the surface of the ovary and usually occurs mid-cycle, around two weeks before menstruation. During this phase, a release of gonadotrophin-releasing hormone (GnRH) occurs which prompts the pituitary gland to produce raised levels of letenising hormone (LH) and FSH (Better Health Channel, n.d.).

Luteal Phase: During ovulation, the egg bursts from its follicle, but the ruptured follicle stays on the surface of the ovary. For the next two weeks or so, the follicle transforms into a structure known as the corpus luteum. This structure starts releasing progesterone, along with small amounts of oestrogen. This combination of hormones maintains the thickened lining of the uterus, waiting for a fertilised egg to stick (implant) (Better Health Channel, n.d.).

If a fertilised egg implants in the lining of the uterus, it produces the hormones that are necessary to maintain the corpus luteum. If pregnancy does not occur, the corpus luteum withers and dies, usually around day 22 in a 28-day cycle. The drop in progesterone levels causes the lining of the uterus to fall away which is known as menstruation (Better Health Channel, n.d.).

Common menstruation problems are: premenstrual syndrome (PMS) which can trigger a range of effects such as fluid retention, headaches, fatigue and irritability; dysmenorrhoea which are otherwise known as painful peroids; heavy bleeding and amenorrhoea which is an absence of menstrual periods (Swanson, 2020). The treatment for these four conditions can include diet changes, exercise, pain relief medications and oral contraceptives to control symptoms (Swanson, 2020).

Migraines associated with menstruation appear to be caused by a drop in estrogen during the menstruation phase. Review of current medical literature notes that treatment may consist of: ice, relaxation exercises, biofeedback, acupuncture, over-the-counter medications, Tripans (block pain signals to the brain), Gepants (a Calcitonin gene-related peptide), other pain medications (Swanson, 2020). Preventative treatment for the migranies are: NSAID medications, Tripans, beta blockers, anticonvulsants, calcium channel blockers, antidepressants or magnesium. Other recommendations are monthly injections of Gepants (Swanson, 2020).

When discussing the viscera, it is important to differentiate between three different types of movement that are assessed and treated.

Motricity – Motricity of the organ is in relation to the movement of the body. Simply put, as the body moves, the organ moves too. An example would be when side-bending to the right is performed, as the right side is compressed, the organs on the right become compressed and the organs on the left will become decompressed and stretched (MOCC, 2021).

Mobility: When the viscera moves, they move in relationship with other structures of the body and in relationship to each other. Again, simply put, an organ moves in relation to the other organs or connective structures. An example would be the movement of the abdominal organs in relation to the upper diaphragm (MOCC, 2021).

Motility: The motility of an organ is based on an intrinsic movement that continually retraces the pathway of embryological development. This is the organs inherent movement from birth, and the movement is based on inspiration (organs movement away from the umbilicus and midline) and expiration (organs movement towards the umbilicus and midline). It can be assessed similar to craniosacral rhythm and is based on the same principles of SQAR (Symmetry, Quality, Amplitude and Rate) (MOCC, 2021).

This case study looks at the relationship of visceral manipulation of the female reproductive organs to assist with menstrual cycle related symptoms. One client was assessed and treated for this condition, who had a longstanding history of severe menstrual cycle headaches with a significant medical treatment history for this issue.

Client LM is a 37 year old female who is a relatively new patient, receiving treatment for a recent motor vehicle accident. The injuries sustained were mostly related to the neck and back and were properly treated with a combination of kinesiology rehabilitation and MOT. Her injuries from the accident resolved 4 weeks prior to the case study treatment taking place.

LM is married with three children who were all born within 4 years and has an uneventful medical history. She has Osgood Schlitter disease of her left knee which has caused some hip and foot problems in the past and she has an undiagnosed condition which causes her debilitating headaches. This condition was the purpose of the case study as it possibly relates to her menstrual cycle.

During one prior kinesiology session, LM commented that she had pretty significant headaches which were causing neck and upper back tension. She took NSAID medications to try to control the headaches. When asked about the history of her headaches, she noted that these headaches were ongoing since puberty and started at the same time she got her first period. The therapist queried what the cause of this was and if she had reached out to physicians to get an answer. LM indicated that she had been to see neurologists, physiatrists, rheumatologists and endocrinologists, none of which were able to identify the root cause of her issues. There was the belief that it was an irregular hormone release or imbalance at the time of menstruation which caused the headaches. When LM was done having children, she had an Uterine Ablation 4 years ago in order to try to stop the headaches. This in fact did not solve the issue, it had no impact on the headaches what-so-ever. Other treatment in the past included massage therapy, craniosacral therapy and has a personal trainer for ongoing health and wellness.

Further investigations lead to LM receiving botox injections in to the neck and head. These have helped significantly in the past but recently, the effectiveness has started to wane. She notes that the injections are every three months and she receives on average, 57 injections to various areas.

Prior to learning about the botox injections, LM was treated for headaches by the therapist with craniosacral therapy which provided positive relief. It was hypothesized at that time that the headaches could have been fascial in origin but the root cause was still unclear. It was after a deep dive in to the patients history and

treatment protocol that the theory became more viable. If the botox injections were effective, the cause of the headaches were in fact fascial, and, due to the timing of her menstrual cycle, were related to her ovaries or other related visceral structures.

In order to determine if it was in fact the ovaries, LM was asked to pay attention to the severity of her headaches over two months, during the time of her cycle. This was done to see if one month produced greater headaches than the other and if this was confirmed, then one of the ovaries would play a more significant role. The importance of this was to treat the correct ovary. Since each ovary takes turns releasing eggs, they run on a 2 month cycle, each alternating release. As the more restricted ovary released an egg and was involved in the reproductive process, it caused greater headaches.

Once LM confirmed the headaches were more significant on the third month, the therapist was then able to confidently proceed with treatment in order to try to alleviate the headaches and receive valid results for the case study. Discussion around treatment of the ovaries and surrounding viscera took place prior to the session. The client was advised that the treatment was to be of no cost as she was being used as the trial patient. She was very open to a new method of treatment to see if any alternative therapy could be of benefit for this longstanding issue.

Methods

Client LM provided informed consent for both the treatment and use of anonymous results for this case study. She was assured that her identity would be protected. Her case study information and chart notes would be stored on a secured, encrypted drive on the therapists' laptop. Short and long-term goals were discussed and these goals along with the assessment results were included in her chart. She was also informed that this treatment would be of no cost to her in exchange for using her as the subject of this case study. The value of this treatment was already established as LM had received initial treatment via kinesiology with additional osteopathic treatment to alleviate headaches previously. LM was provided the following assessments:

- Stress check: Therapist simply asked the client how they were feeling, what was going on during the week and how they felt that day. Were there other factors affecting mood, did they feel ok today or was there something on their mind, or did something happen that was out of the expected norm.
- General Listen: The client is standing, facing away from the therapist and their eyes are closed. The therapist stands behind the client and places their dominant hand on the top of their head and the other hand is placed gently behind the client at the mid-back. A gentle downward pressure is applied to the top of their head and then released. The therapist removed their supporting hand and feels for the movement of the body. The once-supporting hand is then placed in specific areas to try to correct the movement back to neutral. The therapist felt for the following:
 - Ovary: Listening hand will be attracted below the diaphragm on the right or left side (MOCC, 2021).
 - o Fallopian Tubes: Forward flexion into the lower abdomen (MOCC, 2021).
 - o Uterus: The body flexes anteriorly at the lower torso (MOCC, 2021).
 - In the case of the general listen, the therapists hand was drawn below the diaphragm and the client forward flexed, but it was unclear if this was the lower abdomen or the torso.
- Local Listen: The client is supine, therapist stands at the hip and assesses with their dominant hand. The heel of the hand is placed at the pubic bone and light pressure is applied. The therapist follows the pull to the area where the dysfunction is. In the case of this local listen, the therapists hand was first drawn to the right, just above the pubis and deep into the body (MOCC, 2021). Additionally, there was a secondary listen in a loose wavy pattern in the direction of the ovary indicating a fallopian tube lesion (MOCC, 2021). Finally, the therapists hand was drawn in an anterior direction just above the pubic crest in a more superficial field, indicating a uterine listen (MOCC, 2021). In order to properly identify the primary lesion, the therapist kept one hand on the uterus and inhibited the right ovary, the uterus listen greatly reduced, but did not disappear. The therapist then kept their hand on the right ovary and felt for the fallopian tube listen, in this case, the listen disappeared.

- Motility Assessment: The client is supine and the therapist places their hand over the dysfunctional organ and feels for the inherent movement and Rate, Rhythm, Quality and Amplitude are assessed (MOCC, 2021). In the case of the ovary, the therapists finger pads are placed over the ovary, like picking up a cotton ball. The therapist feels for a clockwise (or lateral) rotation with slight superior and anterior movement on inspiration. On expiration the opposite is felt. (MOCC, 2021).
 - For the uterus, the heel of the therapists dominant hand contacts superior to the pubic bone and the uterus is palpated for an anterior and inferior nod towards the pubic bone during inspiration and posterior and superior during expiration (MOCC, 2021).
 - The fallopian tube is palpated along its length. The therapist feels for free movement along this length as the ovary goes through motility (MOCC, 2021).
- A structural assessment using Mitchell testing protocol in the prone position to identify pelvic dysfunction and confirm any sacral lesions.
- An active straight leg test was performed, due to sacral dysfunction, to confirm a completed test. If the
 ovary was inhibited, would the dysfunction at the hip correct itself or improve. If so, this would complete
 the assessment of the dysfunctional organ in question.
- Specific Visceral Manipulations performed:
 - Ovary:
 - Neurovascular Techniques: The ovary is held with T10 on the ipsilateral side, then the vagus nerve and finally with the ovarian artery at the abdominal aorta near the level of the L2 vertebrae (MOCC, 2021).
 - Chapman Points. This is completed in a front-back-front technique if required. The anterior chapman point is massaged anterior and lateral to the symphysis pubis from the upper to lower edge on both sides. The posterior point is massaged at the intercostal space between ribs 9-10 and 10-11 on the medial end, bilaterally (MOCC, 2021).

- Motility: At noted above, the therapist follows the motility of the ovary and encourages the direction of ease.
- Mobility: Client is supine with their knees bent. The therapist stands beside the client and finger pads encircle and pick up the ovary. The ovary is gently mobilized in a medial direction to challenge the suspensory ligament and laterally to challenge the ovarian ligament. The ovary is supported in the direction of ease (MOCC, 2021). In this case, the clients ovarian ligament was restricted since the direction of ease was medial. The lateral border of the ipsilateral uterus was contacted to encourage release (MOCC, 2021). The client is reassessed after.

O Uterus:

- Neurovascular Techniques: The uterus is held with the hypogastric plexus, then T10 –
 L2, then S2-S4 and for blood supply, the internal iliac artery is held at the SI joint/PSIS
 (MOCC, 2021).
- Chapman Points. The anterior chapman point is massaged at the medial edge of the connection between the superior ramus of the pubic bone and the ischium. The posterior chapman point is massaged between the PSIS and the spinous process of L5 on both sides (MOCC, 2021). A myoma (fibroid) was not identified and therefore not treated in the case study.
- Motility: As noted above, the therapist follows the motility of the uterus and encourages
 the direction of ease using a seesaw technique.
- Mobility:
 - Fundus treatment: The client is supine, with knees bent. Therapist picks up the
 fundus of the uterus and mobilizes into ease. Usually a lateral glide to the left
 or right is preferred, the preferred direction of glide is held (MOCC, 2021).
 - Ligament treatment: The client remains supine and the therapist palpates the uterus. It is gently translated superior, inferior, right, left, side bent left/right

and rotated left/right to examine which ligament(s) is restricted (MOCC, 2021).

The uterus is held in the direction of ease and the other hand palpates the insertion point of the affected ligament. Tissue is held though release (MOCC, 2021).

- Assessment of the uterus indicated that there was tension with superior glide, right glide and right side-bend.
- Cardinal Ligament: The uterus was glided into ease inferiorly and contact was made with the obturator fascia of the obturator internus muscle on the left (MOCC, 2021).
- Pubovesical Ligament: The uterus was glided into ease inferiorly and contact was made with the bladder/pubic bones (MOCC, 2021).
- o Broad Ligament: The uterus was glided into ease to the left and contact was made with the AIIS on the ipsilateral side (MOCC, 2021).
- Round Ligament: The uterus was glided into ease on the left and contact was made with the mons pubis on the ipsilateral side (MOCC, 2021).

Fallopian Tubes:

- Neurovascular Techniques: The fallopian tube is held with T11-L1 on the ipsilateral side, then S2-S4, and the blood supply was released from treatment already completed by the ovary and uterus (MOCC, 2021).
- Chapman Points: The anterior chapman point is massaged in an area halfway between the AIIS and the greater sciatic notch. The posterior chapman point is massaged between the PSIS and the spinous process of L5 on both sides (MOCC, 2021).
- Motility: As noted above, the therapist follows the motility of the fallopian tube and encourages the direction of ease.
- Mobility: The client is supine with knees bent, the therapist stands beside them. The
 finger pads of the up table hand surround the ovary, the thumb of the down table hand

gently supports the ipsilateral lateral border of the uterus. A slight stretch is offered by separating the two viscera and is then released. The therapist supports the tissue through this release (MOCC, 2021). The client is reassessed after.

Results

LM on assessment initially presented with a normal affect. She wasn't tired or reported any significant events prior to the treatment session. When asked about her stress levels, she confirmed they were typical for a parent, she was dealing with a delay in a return to school due to the Omicron variant but her husband was working from home so the responsibilities were shared. LM noted that she was experiencing headaches due to her typical menstrual cycle, which had already passed and that they were more severe than last month.

During the local listen, the therapists hand was first drawn to the right, just above the pubis and deep into the body. A secondary listen was in a loose wavy pattern in the direction of the ovary indicating a fallopian tube lesion. Finally, the therapists hand was drawn in an anterior direction just above the pubic crest in a more superficial field, indicating a uterine listen. In order to properly identify the primary lesion, the therapist kept one hand on the uterus and inhibited the right ovary, the uterus listen greatly reduced, but did not disappear. The therapist then kept their hand on the right ovary and felt for the fallopian tube listen, in this case, the listen disappeared.

LM's ovary was treated first as it was the primary lesion. On assessment, the ovarian ligament was restricted and treated into ease, it was also treated via neurovascular methods and via arterial supply. The ovaries motility greatly improved afterwards and the Rate, Rhythm, Quality and Amplitude improved. The initial rate of the ovary pre-treatment was 5 beats/cycle which improved to 7 beats/cycle after. A local listen was done to reassess and confirmed that the listen was no longer identifiable.

Following the successful release of the right ovary, the therapist released the uterus. Mobility showed restrictions in the broad ligament, cardinal ligament and the pubovescical ligament. Once treated, along with the neurovascular and arterial components, like the ovary, the uterus also showed significant improvement. Again LM was reassessed via local listen and confirmed that the listen had resolved.

Finally LM was assessed for her fallopian tubes. As this point the listen was significantly improved already, but for the purpose of the case study and her condition, the fallopian tube was treated. Following treatment of the third visceral organ treatment stopped and LM was asked how she felt. LM confirmed that she felt better, her headaches were not as intense. The therapist confirmed that the vagus holds could have played a role in the relief of the headaches and it was not the treatment of the viscera at this point in time that provided the relief. LM was asked to keep track of her headaches over the next couple of weeks to see if the intensities would remain reduced. She was also encouraged to follow up with her physician regarding any significant changes including any worsening of symptoms or new symptoms. She was also encouraged to stay active and keep her stress levels to a minimum, as best as she could.

Follow up with LM two weeks later confirmed that her headaches were still not as severe and less frequent. She also had low back pain relief and hip/pelvic relief. She was in better spirit on follow up and appeared to have more energy. LM did not have any adverse side effects and discussion was had regarding the cycle of intensities of headaches. It was possible that because this past menstrual cycle was the more significant cause of headaches, the upcoming month would, by nature, be less intense. She was advised to try her best to identify if these headaches would be less severe or frequent and a follow up treatment was scheduled for two weeks in the future to further deal with the more intense future cycle.

Discussion

The viscera play an essential role in the human body and in large, can be affected in the same manner as any other structure, whether that be physical, mental or emotional trauma. How the body holds this stress and/or trauma is unique to each individual and manifests itself different ways.

Menstrual dysfunction is a common occurrence in women, which can occur in as much as 14% to 25% of women of childbearing age (Whitaker, 2016). Although the severity and kinds of dysfunction are different, the prevalence of symptoms are enough to be vastly documented. Most information regarding management of these issues are either medicinal or even surgical in nature. What this case study has shown is that releasing the organs restrictions from a combination of neurovascular techniques and fascial techniques, can provide an alternative method to traditional medicine. Allowing the body to self-regulate by bringing awareness to the dysfunctional organ appears to have significant benefits to the overall treatment and correction of symptoms.

This is shown in the case study results; an individual, LM, had ongoing menstrual related symptoms, specifically migraines for the last 23 years since getting her first period when she was 12. She has undergone significant testing, had surgical procedures, takes medications and receives Botox injection to reduce the symptoms. By directly treating the organ restrictions, a similar result to medication relief was felt. The long term results are not entirely known as the therapist will need to follow up for associated headaches in two months' time to see if the intensity did in fact truly decrease.

LM was encouraged to continue her normal daily activities and to reduce stress levels where possible. She was also encouraged to follow up with her physician regarding medication review as the Botox injections were starting to become less effective. Additional therapy sessions were booked every two weeks in order to maximize visceral treatment prior to her next significant menstrual cycle related symptoms occurred.

It is important for the therapist to get a full picture of the patient on the date of treatment. A stress check to confirm their autonomic system function, a family history of medical conditions, a current medical history and changes in normal daily activity can all help form an injury impression. Once this has been documented and a general listen is confirmed, it is easier for the therapist to start to identify what the key problems are and move forward in treatment. Additionally, if there are multiple dysfunctional viscera identified, it is very important for the therapist to properly identify the primary lesion with further testing. If the viscera are treated incorrectly, symptoms can become increased or new injury can occur. Ultimately the therapist could make a patient worse off after than when they came in.

Further studies that look in to menstrual cycle related symptoms could be done with a focus on individuals who have currently been unsuccessful with traditional medicinal treatments and have significant outlying symptoms. Like LM, those whom have gone through various treatments already with significant change in symptom relief would more accurately show that direct visceral treatment could be an effective way to treat menstrual related dysfunctions.

Conclusion

Visceral remodeling of the liver provided positive results in aiding in the alleviation of migraine type headaches associated with menstruation. Although this was the primary focus of the case study, additional benefits in the form of low back and neck pain relief, as well as increased hip range of motion also occurred. The reduction of headache intensity via treatment was very promising to both the therapist and client and the potential for long-term benefit was agreed to be tested. The treatment of the reproductive viscera proved beneficial but it is unclear if the treatment alone was the cause of all of the results or was done in combination with NSAID medications and previous Botox injections done four weeks prior. It is likely that the entire treatment protocol aided in the overall reduction of symptoms associated with LM's menstrual cycle dysfunction.

Ongoing collaboration with the physician in regards to treatment is highly encouraged. As the Botox treatment efficacy starts to wane, it would be recommended that additional visceral treatment is provided to see if the results stay the same. It is the therapists' opinion that ongoing management from oral and injectable medications is not an appropriate solution for an individual of such a young age.

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