

"Blood vessels tension release as a part of neurological,
MSK and visceral treatment"

Tatsiana Davidovich

S200206

June 5, 2020

Working on different of clients' requests, I have noticed one very similar pattern of osteopathic lesions. It was not dependent on any particular type of complaints. The complaints really varied, and included headaches, neck and lumbar stiffness, hands or legs numbness, nagging limb pain, joint pain and even inflammation, allergies, chest pain, chronic bronchitis, or often inflammatory processes in respiratory system, asthma, arterial hypertension, heart rhythm disorders, edema, varicose veins, hemorrhoids, indigestion, constipations or looseness, and even ineffective orthodontic treatment.

These patients showed a perceptible tension of liver, spleen, thoracic diaphragm, in the areas which I can describe as large vessel projection - thinking anatomically, - lung roots, heart and mesentery of the small intestine. Oftentimes working on the neck or knee, or doing lumbar mobilization I felt like a wide traction leads me to the liver. I can say that liver was restricted, in the state of extension and internally rotated nine times out of ten.

When I applied certain mobilization techniques to the liver, I received a very small effect and it looked like tissues did not respond very well, while the liver kept internal rotation and extension. And I felt another wide traction lane from the liver's gate to the vena cava inferior where it falls into the right atrium. Also, there was a restriction in the pericardium region which passed on to the aortic arch, pulmonary trunk and lung roots.

Jean-Pierre Barral in his book "Visceral Manipulations vol.I" and "Visceral Manipulations vol.II" gives a description of embryonal motility, moving, which is different from the commonly known regular organ mobility. So I started to listen for the motility motion of the liver and if it goes on correctly.

I can say that at first I could not feel anything except for breathe movement and a kind of pulsation in my hands. It took quite a long time until my palms became relaxed, breathing calmed and mind leaned on stillness.

I had enough time to do this practice, and I can say, that 50% of being possible to feel motility motion of organs depends very much on being able to set your own calm state of mind.

Another moment is that I can not feel the motility motion of organ each time I want, as the tissue restrictions involve on it too. The harder tissue and less mobility was in the examined area, the less motility I could feel there.

But this experience with the motility listening brought something interesting: if I sat calm, feeling relaxed, doing almost nothing, just trying to understand what the organ wants to do, in a short time I normally felt that the organ's region become warm with some of motility movement starting to proceed. Sometimes it was not very abundant in flexion or extension, sometimes it did not show all the required motility movement directions, but all of that finally emerged after the tissue warmed and softened.

I can assume that the heat came from the opening capillaries and the improving blood circulation in the tissues. Capillary function and the arterial clearance width is regulated by the Sympathetic Nervous System and depends on sympathetic ganglions and plexus activity.

Going back to the liver, which is extremely rich in blood vessels, I can expect that the origin of high liver tension also can come from the celiac trunk sympathetic ganglions hyperactivity, followed by narrowing of arterial clearance.

The course of the elastic fibers in arterial vessel is spiral so we can expect that each step of the narrowing leads to a step of shortening in length. That is why we can see the internal rotation and extension phenomenon towards the celiac trunk. It is like the celiac trunk pulls the liver's gate towards itself.

The phenomenon of the diaphragm tension also can include the blood vessels tension mechanism, since the diaphragm gets blood supply from the phrenic arteries, which start from abdominal aorta right behind where it passes through the aortic orifice of the diaphragm and very close to celiac trunk sympathetic nervous plexus.

The listening for motility of the diaphragm and the blood vessels right behind it probably had sympathetic ganglion's function activity regulation effect and less tension was transmitted to the arteries. As their clearance is expanding, they are lengthening, blood supply to tissues increases simultaneously with capillary blood flow.

I can say that it was the most effective technique in those cases. I also noted that all of such patients had certain emotional coloring of their complaints and certain amount of general stress. So, I found that the listening for the diaphragm and the liver motility reduces sympathetic nervous plexus and ganglion hyperactivity, followed by the fact that the arterial tension and increases regional blood supply of the tissues.

The tissues, like diaphragm, liver and ligaments become more elastic and responding to further osteopathic treatment. In the case of the liver I could notice how it pulsed, softened, started to move at external rotation and flexion. Usually I have heard patient's breathing change, become deeper, calmer, more free and balanced in inhalation and exhalation breathing movement.

This vessel tension based pattern leading from the liver gate could go down, toward to umbilical area, mesentery of the small intestine which is portal vein system projection. Or, the tension could go up, following inferior vena cava projection until it flew into the right atrium. And you can feel it better from the patient's front or back in a supine position, from VII to VI intercostal space on the right parasternal line.

Depending on patient's body constitution there is variation in vena cava position and place of where it flows to the right atrium of the heart from VI to IV intercostal space.

Listening for the tension in its motility aspect which emanated from the liver gate toward to the umbilical area and mesentery of the small intestine gave softening, pulsing, self-tissues inducted movement, after the vessel tension was gone. Also, there were effects of peristalsis activation, abdominal girth reduction and toning the muscles of the anterior abdominal wall.

There was a noticeable global release effect, which we can explain by abdominal and other cavities blood circulation reflex interconnections. Patients described sleep and memory normalization, total calmness and emotional harmonization as further global therapeutic effects. Also, there was feedback describing digestion improvement, hemorrhoids relief, edema reduction, some weight loss which is caused by venous stasis reduction and normalization of blood circulation in the liver and intestine, normalizing digestive enzymes production and gaining the metabolism.

The patients with spine problems were getting lumbar spine pain relief from doing the motility techniques of the arterial tension release. I can guess this happened due to the decrease in the abdominal pressure, balancing the tone of the anterior and posterior abdominal wall, decreasing spinal compression, release of facet joints and spinal cord nerves.

Doing this job was a good start for further joint or spine mobilization, visceral techniques, ligamentous balancing techniques, and pelvic bones correction.

Another type of vessels tension pattern is from the liver's back (from VIII to XII ribs on scapular line) toward to the chest. It is vena cava inferior projection in accordance with topographic anatomy.

I may not have a full explanation for this, because the veins are not regulated by the Sympathetic Nervous System tonus so much and veins don't have a significant muscular layer. The reason might therefore be in arterial venous reflex interactions or internal connective tissue reactivity, which is described in Sergio Paoletti's monograph "Fascia. The role of tissues in the mechanics of the human body".

What I can say, the expansion of the tension from the liver region towards the chest sits in the large vessels projection such as aorta, lung roots, subclavian common carotid and vertebral arteries and brachiocephalic trunk.

I can observe that the most solid and rigid lesion involves the ribs, vertebra, and sternum. All of those are almost not responding to osteopathic mobilization techniques. So again, starting to listen for the motility motion in this region was the most effective technique on this kind of tissue lesion in my practice. You can start from the inferior vena cava and then feel the left side rotation of the heart which induces torsion on the heart fibrous base level.

I can guess that this kind of lesion can have its role in arterial hypertension, heart rhythm disorders, coronary heart disease, kyphotic and scoliotic posture impairment, chest pain. I myself love this moment, as when release happens, the ribs cage warms up and your patient shares the experience of easiness and free breathing.

One of my patients said that she feels it like a quiet harbor in her heart. And now she faces all changes in her life, no matter what kind, with peace and calm. Some of my patients had temporary or even steady blood pressure decrease and stabilization. Some of them could reduce the dose of medicines taken. What is more, an anticipated result of the motility blood vessels tension release is normalization of functional heart rhythm disorders, such as extrasystole, bradycardia and tachycardia.

I did not notice any special pattern requirement in motility listening. You can start from the inferior vena cava, then go to the heart, feeling its rotation, then to the pericardium and phrenicopericardiac ligament, and the aorta in its part which is close to the diaphragm.

Then, after abovelisted structures are released, you can feel that the most constrained area is the mediastinum on the lungs root level from II intercostal space to IV on the sternal line and little lateral. Thereafter the bronchial tree of the roots of the lungs might need to be corrected in the motility technique and it prepares the next step, the aortic arch correction.

There are upper and lower ganglion seated in the aortic arch window and relaxing this area effects as a global chest region release (from Bahrral's "Visceral Manipulations Vol. II").

I have noticed that patients with expressed tension of the aortic arch usually have a lesion in the upper spine vertebrae (from Th II to Th IV). These are usually in extension. And above, from C VI - C VI to Th I - Th II the vertebrae are in flexion, and we can see that the soft tissues are usually edematous. Facet joints are restricted from the one or both sides and people often complain of neck pain, shoulder pain, cold hands, numbness, hands pain and so on.

After doing the aortic arch you may have 3 different ways to go: towards the subclavian arteries, towards the vertebral arteries and to the descending part of the aorta.

The tension in subclavian arteries participates in the osteopathic lesion of the upper aperture of the chest diaphragm. Also, since the lower cervical ganglions are positioned close and add to the general tension, adding the motility technique is very helpful for the release of the upper chest aperture diaphragm.

Very interesting was the experience when I could feel the vertebral arteries constrained. Such patients normally had complaints of migraines, dizziness, tinnitus, memory impairment, insomnia, resistance to the orthodontic treatment, loss of vision or decreased visual acuity, gait disturbance, orthostatic hypotension and so on.

Doing the osteopathic examination, I have discovered a restriction in vertebrae joints, muscle spasm and hypotension, trigger points, reduced mobility of clavicular and manubrium and scapular-thoracic joint. These patients usually had very tense occipital bone and it looked like it did not have any primary respiration mechanism movement in place.

Also, the patients had a C 0 - C I restriction. Dura mater had a lesion at C 0 – C I – C II, condyles of the occipital bone level. There was a compression of Ventricle IV, and cranial venous sinuses, especially the marginal sinus of the occipital foramen, occipital sinus, transverse and sigmoid sinus.

A good tactic for relaxing the tension of the vertebral artery was to free up its junction with the subclavian artery. I provided it by applying minor traction between the subclavian area next to the sternoclavicular joint, and the space between the transverse processes of C VII and C VI.

After it has been relaxed, it would be good to do a little traction in the spaces between C III and C II, C II and C I – C 0. Then it normally needs correction of dura mater lesions at C O and condyles of the occipital bone. And the glorious feeling of expansion in the VI ventricle region, occipital bone, blood vessels pulsation and the initiation of the primary respiratory mechanism movement in the occipital bone comes to your hands.

Depending on the client's body request, you may then need to apply craniosacral therapy techniques, for cranial bones and membrane lesions correction.

Another way of following blood vessels tension is to follow the descending aorta, its thoracic and abdominal part. Since it is the widest and the strongest vessel in the body, its constraints may participate in kyphotic and scoliotic posture formation. I must add that such patients commonly have chest, lumbar and lower back pain complaints, arterial hypertension and

coronary heart disease. Elderly patients may have aortic sclerosis or aortic calcification. I can guess it is not an age related problem and mostly happens as the next stage of aortic strain persistence for a long period of time.

Osteopathic examination shows that costovertebral joints, facet joints on the left side, spine ligaments, intercostal muscles can be affected being involved in aortic strain. We can also find a chain of sympathetic ganglia in the aortic projection on the left side of the human body. So, doing the motility listening of this area we can correct both.

I have seen incredible effects of unfolding kyphotic and scoliotic disorders of posture, doing this technique in the cases of early or even long existing posture disorders, no matter the type and the length of patient's condition. I could still observe an obvious change in bones position and balance of the muscles. Very noticeable was a change in the tone of the intercostal muscles and the position of the ribs by relaxation in the region of the costal vertebral joints.

After working on the main chest blood vessels the patient's situation normally requires correction of the sternal strain to release articulation restrictions between the manubrium, body and the xiphoid process. The sternum normally has kind of internal torsion and lateral rotation. I have found that it is necessary to finalize the osteopathic treatment on the chest as a part of preventing the patient's symptoms return to reinforce a stable positive effect.

Very interesting was an experience of motility based release of the abdominal part of aorta. Right behind the diaphragm, little lower than celiac trunk, we can find the renal artery, and patients with the lumbar pain, pelvic and lower limb problems, they have the renal arteries strain very often.

Also, they would often have a kidney prolapse and I can guess that one of the reasons for this disorder is the renal tissue turgor loss due to the decreased blood supply. Sometimes it could lead to the development of arterial hypertension of renal origin.

The experience of renal arteries strain correction is very inspiring. Especially that we can do this work controlled by direct kidney palpation. You can feel, while the renal artery is releasing, how the lower kidney pole starts to pulsate, move and rock. I can describe this movement as if kidney "scrambled" to its place.

The blood vessels strain release based on mobility techniques in combination with visceral renal mobilization techniques brings a very good and stable result with arterial hypertension, lower back and extremities pain, kidney prolapse and pelvic area correction.

Summary of observations, findings and motility techniques on the projection of the main body vessels:

1. Sympathetic Nervous System activity participates in the stress formation. The mechanism of the stress development includes the blood vessels clearance and length decrease.
2. Decreasing blood vessels clearance and length may participate in chronic osteopathic lesion persistence and a decrease in blood supply.

3. Blood vessels affect each other due to the reflex and fascial interactions, which may cause systemic vascular reaction.
4. Inner organs are very rich in blood vessels and they are dependent on vascular strain and blood supply.
5. It is possible to start osteopathic treatment from motility based blood vessels strain release technique. This is especially relevant for complaints with emotional elements and anxious patients.
6. Due to the arterial spasm reduction and balancing of the Sympathetic Nervous System activity we increase the blood supply to the inner organs and tissues. It brings deep emotional release and a feeling of satisfaction in the patient, stress resistance, and prevents patient's symptoms from returning.
7. Application of motility techniques is an extremely effective step for further osteopathic correction, and it is especially effective in combination with other visceral, craniosacral, joint mobilization and fascial release techniques.

Literature:

1. Jean-Pierre Barral “Visceral Manipulations Vol.I”.
2. Jean-Pierre Barral “Visceral Manipulations Vol.II”.
3. Sergio Paoletti “Fascia. The role of tissues in the mechanics of the human body”.
4. Frank H.Netter “Atlas of human Anatomy”.
5. Netter’s Essential Physiology 2nd edition.