Osteopathic approach on Covid - 19 sequels

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By 2020 and this year, we have lived, and we are still living a new reality. This new reality prevailed in our routines, and it has come to challenge us, both in our way of life and in our osteopathic practice.

From what I understand and apologizing in advance if I make the mistake of generalizing, all of us as osteopaths have found ourselves blocked from continuing with our daily practice. Without entering into the dilemma of thinking if that was right or not, I found myself in a difficult position. For years I had read that Andrew Taylor Still and his students treated infectious diseases, pneumonia, dysentery, etc. However, in this new reality, we had no access to none of our patients.

With this idea, I came to Alain Abehsera, who shared with me and a little study group the article which is being presented at this conference[1]. He has been very generous with us.

When I first read it, it became a new challenge for me, and I got very impressed by the way he thought about it and his osteopathic way of understanding the illness. There is no doubt that he "*breaths osteopathy*".

I started to study Alain's report and tried to make this kind of reasoning valuable and useful for me. Later, I had a chat with a colleague, and she told me that this approach was "*minimal osteopathy*" I loved it. That's why I brought this here.

The medical bibliography which I have accessed and the informal talks I have had with doctors; did nothing but validate this theory.

[1] COVID19: AN OSTEOPATHIC HYPOTHESIS ILLUSTRATED BY A SINGLE CASE REPORT, Dr. Alain A. Abehsera DO MD OSTEOPATHY IN INFECTIOUS EMERGENCIES, Dr. Alain A. Abehsera DO MD

Now, will the proposed treatment work? Would we be able to replicate it?

In Argentina, there was a very long lockdown. The restrictions were heavy and, it was almost impossible to reach an acute covid patient. While I was talking with Alain and thinking about this phenome, he made us realized that, even though we didn't have access to an acute covid patient, we would have almost unrestricted access to patients who had been discharged after recovery from COVID-19.

Following his theory, the virus is present in the patient's body for a minimal time, generating significant out-of-control inflammation in the most acute cases. The autonomous nervous system deregulates, and the collaboration between sympathetic and parasympathetic branches got lost, favoring the inflammatory response.

According to the article mentioned before, "*Within the body, invasion and inflammation are dealt with at the local level by first line mechanisms, such as the skin or local immune cells. Should the threat reach a larger scale, spilling, for instance, into the general circulation, there is a larger involvement of the immune system, under the control and coordination of the neurological system, mainly through its autonomic division. The central nervous system has the complete picture of what is happening in the body, not the immune system. The absence of discussion of this coordinating role of the autonomic nervous system (ANS) on the immune response, has been very conspicuous in the literature on Covid. This should not be so. The ANS is systematically involved during all stages of the immune response to inflammation and/or infection, particularly when the total body economy is solicited, which is obviously the case in Covid 19….* [2]

Abehsera's case was based on his experience with an active COVID patient. He made a suboccipital inhibition techniqu; in this anatomical area, we have the major sympathetic and parasympathetic centers reachable to human hands. Just in front of the atlas/axis, we find the Nodose and Jugulate ganglia, which are major parasympathetic centers connected to the lateral sympathetic chain (superior cervical ganglion).[3]

[2] COVID19: AN OSTEOPATHIC HYPOTHESIS ILLUSTRATED BY A SINGLE CASE REPORT, Dr. Alain A. Abehsera DO MD

[3] COVID19: AN OSTEOPATHIC HYPOTHESIS ILLUSTRATED BY A SINGLE CASE REPORT, Dr. Alain A. Abehsera DO MD

So, if the virus triggers the immune system reaction and the deregulation of the nervous system, we can assume that the sequels are kept in time by the lack of capacity to reach a balance and by the autonomous nervous system, which continues perturbated.

So, there was my dilemma, would it work in the same way?. Why don't we give it a try?

I proposed to all my patients who had had COVID 19 and had symptoms that persist after recovery if they would join an experiment.

There is growing evidence that even in young people with mild COVID-19, the infection sequels may last weeks, even months. These sequels are called "persistent symptoms," and they fluctuate. They include severe fatigue, dyspnea, rapid heart rate with minimal effort, chest pain, pericarditis/myocarditis, hoarseness, skin manifestations, and hair loss, acquired dyslexia, headaches, loss of memory, recurrent fevers, gastrointestinal symptoms. Various mechanisms can produce symptoms. We could find direct organ damage, immune function involvement, and the autonomic nervous system (ANS) between them.[4]

The very first time, I tried the original protocol (only suboccipital inhibition technique) with a small universe of eleven people. These were the requirements:

o Not having received previous osteopathic treatment after recovery.

o Patients must complete a survey[5]

o Assist only one session in which two techniques are performed: suboccipital inhibition and mobilization of the atlas vertebra.[6]

[4] covidreference.com

[5] https://docs.google.com/forms/d/19DJlyisvR7qBpYZ-pk43FNzhOi-KYj9-mhyjePyYGks/edit?usp=sharing

[6] COVID19: AN OSTEOPATHIC HYPOTHESIS ILLUSTRATED BY A SINGLE CASE REPORT, Dr. Alain A. Abehsera DO MD

o Check the results in ten days.

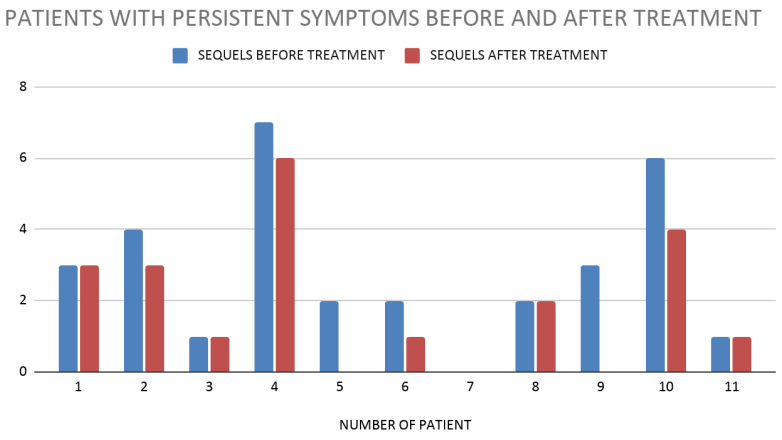
Early results were encouraging. 82% of the patients reached a reduction in at least one persistent symptom.

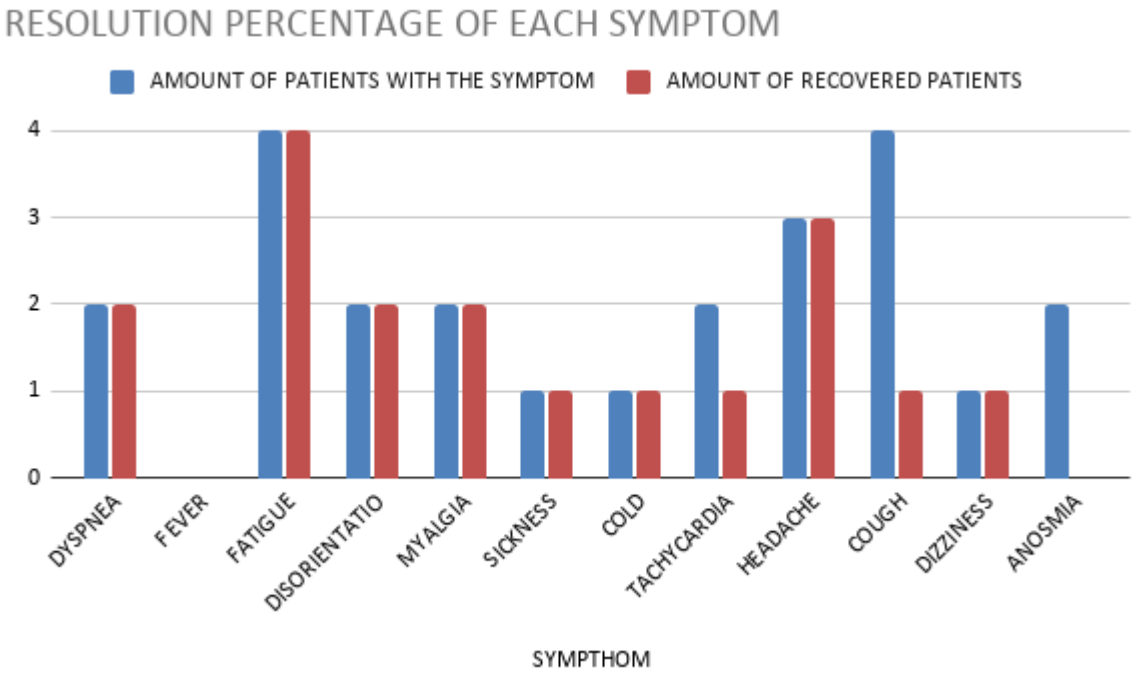
Patients who came to my office didn't felt pain in the suboccipital area. However, I found the atlas occipital joint compacted in almost all cases. For some of them, the atlas vertebra was slightly translate to the right. It was no need to correct this translation; it would come back to its place as long as I continued with the suboccipital inhibition technique. Meanwhile, patients told me that they were feeling peaceful and relaxed.

As for perception, I found a feeling that I have identified with a discharge and/or organization of the nervous system. That tingling in your fingers when you perceive some flow of electricity. Once happens that feeling, all I had to do is wait for the consolidation of the technique. The treatment lasts about 20 minutes, I couldn't have done it in less time, but I considered that the duration might depend on the patient and the therapist.

In some cases, there was no answer during the suboccipital inhibition. I didn't found this joint compacted. However, the atlas vertebra was hypermobile, and the patient referred some pain in the area and fatigue.

To sum up, the first results showed that symptoms like dyspnea, disorientation, myalgia, joint pain, headache, and dizziness were completely solved. Cough and fatigue were almost solved, and sinusitis and anosmia had no improvement.





Considering that COVID is a disease that leaves so many sequels, I believed it's imperative to keep thinking about where the dysfunction is and apply Still's principle "find it, treat it, and leave it alone."

I thought about adding a new technique, but it was not an easy decision. According to my way of considering osteopathy, it should be easy and not exhausting for the patient or the therapist, so treatment should be short, easy to apply, and of course, effective.

Post-COVID patients have been struggling with the autonomic conflict caused by the virus; they were stressed and burned out. So, if our treatment is too long or too many techniques are performed, we won't bring calmness to the system. Imagine how this body could find the balance and deal with a session of an hour or more?.

Another point to take into consideration is our fatigue as therapists. All of us as a society have been exposed to very stressful situations. These days we were receiving people in our offices who hadn't suffered from COVID, but they had been dealing with fear, stress, economic problems, a loss of a relative, whatever. At the end of the day and after being worked, how could we find room and energy to help Post-COVID patients if we don't have short and useful tools? I thought very few.

For the reason mentioned before, I believe that minimal osteopathy must be a requisite. I didn't find it hard to organize Post-COVID patients on my schedule. The first thing I took into

consideration was that the diagnosis was already there. All I had to do was perform the technique and wait. This kind of treatment meant relief and an incentive for me. I haven't felt tired at all. Also, I thought that with minimum coaching, advanced students might execute the treatment without any difficulties.

To determine a third technique or an extension in the protocol required more work to do. I was analyzing some publications, especially those related to anosmia, since it is the symptom in which I did not have any results, followed by cough. The idea was to investigate how the virus enters and spreads through the nervous system.

After reading all the material I had access to, I began to think about the most appropriate and effective technique. I had to choose between a technique that revitalizes the system or another one that goes directly into the affected area (olfactory cilia and terminals of the olfactory nerve).

Following the idea by which the entry point of the virus is the retrograde olfactory nerve (pair I)[7]; the brain connections of the olfactory nerve go from the olfactory area to visceral centers, salivary nucleus (salivation), dorsal nucleus of the vagus (nausea, peristaltism), hypothalamus, epithalamion.

Anatomically speaking, the olfactory nerve goes between the ethmoid and the sphenoid's lesser wing, crossing the cribriform plate.[8]

On one hand and according to this anatomical explanation, the chosen technique would be FRONTAL BONE LIFT, which is indicated when there are tensions and fibrosis of the falx cerebri, disturbances of the drainage of the superior and inferior sagittal sinuses, restrictions of the sutures of the frontal bone, particularly in the ethmoidal foramen and in the ethmoidal cribriform plate. This technique meets the requirements set before, is very soft, helps the system reach calm, and reduces inflammation.[9]

On the other hand, and keeping in mind the port of entry of the virus, the way it spreads through the blood-brain barrier. I would choose 4th ventricle compression (CV-4), a universal technique and with very few contraindications.

The overall effect of this technique is an improved supply to the cells, an improved motion of the lymph, and regeneration of the tissue, and the stimulation of the cranial nerve centers in the region of the 4th ventricle. It is indicated in the normalization of PRM rhythm, tonus

[7] Olfactory transmucosal SARS-CoV-2 invasion as a port of central nervous system entry in individuals with COVID-19.
[8] Jean Pierre Barral Alain Croibier - Manual Therapy for the cranial nerves.
[9] Torsten Liem, Cranial Osteopathy: Principles and Practice.

reduction of the sympathetic nervous system, positive effects on stress symptoms, anxiety states, insomnia, hypertension, tachycardia, and edema due to venous congestion and inflammation, and infections.[10]

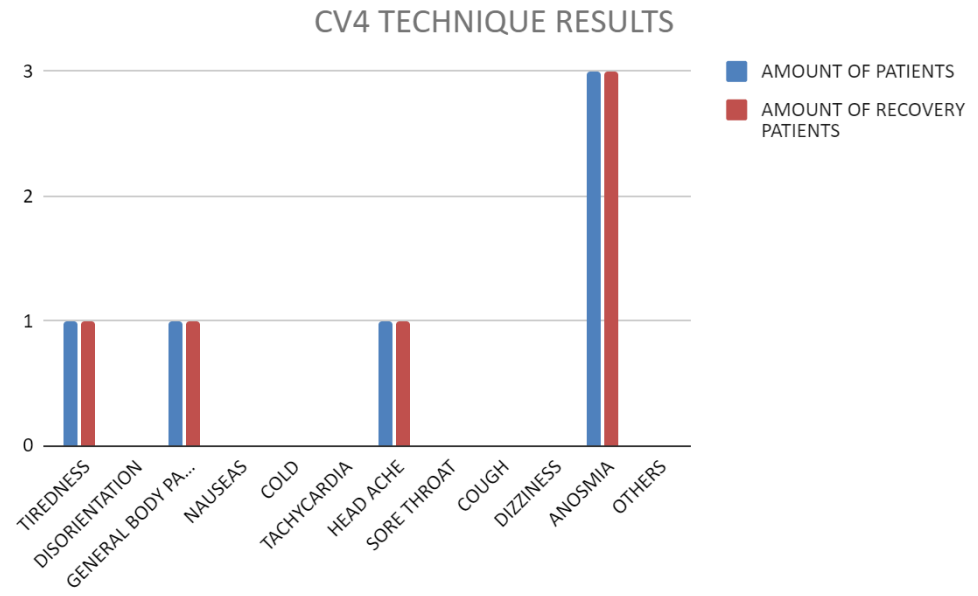
The next step would be to test these two techniques (CV- 4 and Frontal bone lift) randomly in a universe of 10 people without considering the symptoms. These were the requirements:

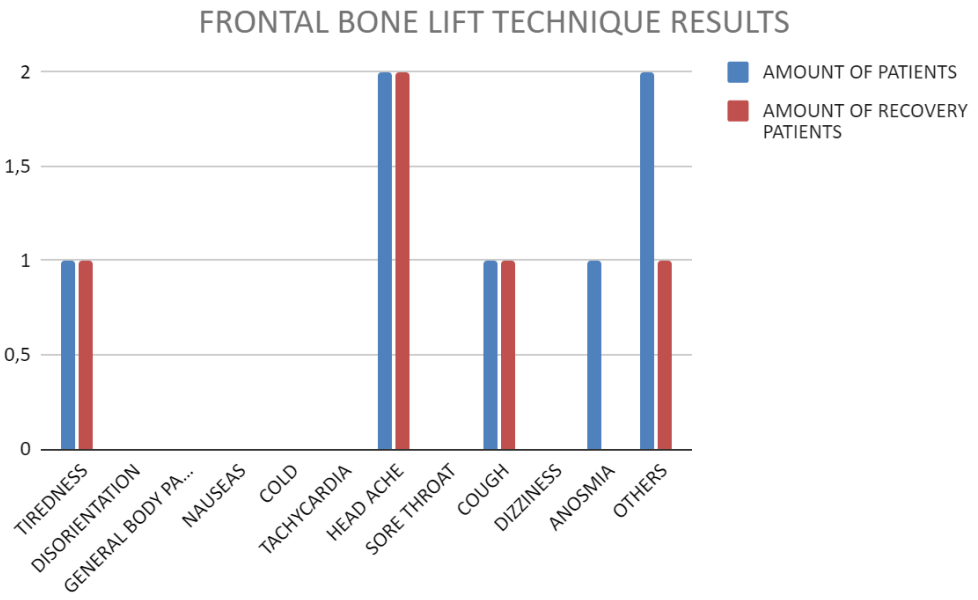
- Not having received previous osteopathic treatment after recovery.
- Patients must complete a survey[11]
- Assist only one session in which two techniques are performed: suboccipital inhibition and mobilization of the atlas vertebra.
- Perform CV-4 or Frontal Bone Lift randomly.
- Check the results in ten days.

The results are encouraging one more time. After having applied the CV-4 technique, positive results were obtained where previously there were no changes. Anosmia and cough partially or entirely reversed after ten days.

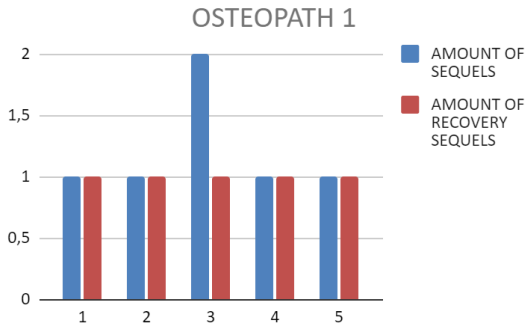
[10] Torsten Liem, Cranial Osteopathy: Principles and Practice.

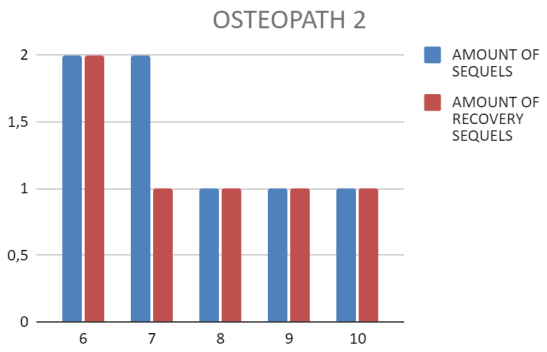
[11] https://docs.google.com/forms/d/19DJlyisvR7qBpYZ-pk43FNzhOi-KYj9-mhyjePyYGks/edit?usp=sharing





During this long process of trying to get some answers to COVID sequels, I called some close colleagues of mine, and others not so much. An advanced student of Escuela Argentina de Osteopatia (the school I had studied and where I currently work), Cecilia Gerardi, joined the experiment as a second therapist. In her office, she applied the protocol to some patients according to the requirements mentioned before. Both of us got the same results. It's another proof that Alain Abehsera's hypothesis was right.





To sum up, and even though the first results are encouraging, the experiment should go through more specific processes and even with more patients and therapists. As a team, I think it might be handy if you could join us to avoid making redundant and individual investigations due to the fast changes and actualizations we are facing. Somehow, nature replaces our way of life and mirrors it over humanity, calling us to reflect on how we choose to live if we do it at full speed, leaving our health along the way or enjoying the journey. I think it would be good to reach the level and give concrete answers to our patients. If we could start doing it as a team, we will put our profession on the next level, being where we are needed. I hope my experience became worth it for so many osteopaths, and let's add "hands and brains" to get you to the right place.

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