Osteopathic Considerations for Sinus & Allergy

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Disclosure

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Objectives

1. Describe the 3 major anatomical systems used when formulating a basic osteopathic treatment plan.

2. Describe an osteopathic treatment plan for a patient with sinus related dysfunction.

3. Demonstrate an osteopathic treatment plan for a patient with sinus related dysfunction.
Principles of Osteopathy

The body is a unit

Structure and function are inter-related

The body is capable of self healing and self regulation

Rational treatment is based on these principles

http://www.osteopathic.org/inside-aoa/about/leadership/Pages/tenets-of-osteopathic-medicine.aspx
Core Principles

Disease involves derangement of one or more of the following:

Sympathetic Nervous System
Parasympathetic Nervous System
Lymphatic System
Circulatory System
Musculoskeletal System

Anatomy
Facial Sinus Locations

- Frontal Sinus
- Ethmoid Sinuses
- Maxillary Sinus
- Sphenoid Sinus
Another view
Arteries and veins both become dysfunctional
Why We Care

Spread of Sinus Infection into the Brain, Resulting in Brain Edema and Hemorrhage  |  Doctor Stock
flowing river images - Google Search

stagnant pond images - Google Search
Physiology
Sympathetic Tone in Sinus Disorders

Sympathetic innervation in the sinus causes vasoconstriction which:

- Increases venous congestion
- Lymphatic congestion
- Thickens mucous

https://www.dartmouth.edu/~humananatomy/part_8/chapter_52.html
Sympathetic preganglionic nerve fibers leave the upper thoracic spinal cord and traverse white rami communicans in that region. Then, ascend the cervical sympathetic chain and synapse in the superior cervical sympathetic ganglion.
Parasympathetic Tone

Parasympathetic innervation in sinus causes vasodilation and increases secretions

Thins secretions

https://www.dartmouth.edu/~humananatomy/part_8/chapter_52.html
Parasympathetic Tone In Sinus Disorders

Parasympathetic preganglionic nerve fibers to the nose leave the brain with the facial nerve, pass through the greater petrosal nerve and the nerve of the pterygoid canal to reach the pterygopalatine ganglion, where they synapse.

https://www.dartmouth.edu/~humananatomy/part_B/chapter_52.html
Alterations in Lymphatic Drainage

Lymphatic congestion leads to:
Lower immunity
Inflammation
Accumulation of particulates

Alterations in Circulatory Flow

90% of the venous flow from the head exits the skull via the jugular foramen

Passive congestion is common in sinus disorders

Fluids also pass through the anterior neck fascia into the supraclavicular fossa and into the chest

Treatment
How Osteopathic Principles Can Be Incorporated in Practice.

Parasympathetic

Sympathetic

Standard of Care
Treatment

Lymphatic
By Modification of Sympathetic Tone

**Thoracic Paraspinal Inhibition:**
- Helps to normalize sympathetic tone
- Reduces facilitation
- Helps with drainage of the head and neck
Modification of Sympathetic Tone

Cervical Articulation:

Special Attention to C2

Helps to normalize sympathetic tone and facilitates drainage of the head/sinuses
OA Decompression:

Also known as “Killer Fingers”

Helps normalize parasympathetic tone
Helps facilitate drainage from the head
Releases posterior cervical fascia

Numerous Osteopathic Manipulative Medicine Texts
Modification of Lymphatic Flow

Thoracic Inlet Release:

Normalizes sympathetic tone
Helps release anterior cervical fascia
Improves circulation to and from the head
By Nerve Inhibition

The nerves for the posterior and larger portion of the nasal cavity come from branches of the pterygopalatine ganglion that are derived from the maxillary nerve.

The chief sympathetic (vasoconstrictor) and parasympathetic (vasodilator and secretory) innervation of the nasal cavity follow nerve branches arising in the region of the pterygopalatine ganglion, but some sympathetic fibers are carried along the walls of arteries.

https://www.dartmouth.edu/~humananatomy/part_B/chapter_52.html
Pterygopalatine Ganglion

http://pure-dental.blogspot.com/2012_03_01_archive.html
Procedures
Basic Procedures

OA Decompression
Thoracic Inlet Release
Thoracic Paraspinal Inhibition (Rib Raising)
Lymphatic Drainage
Cervical Articulation
Pterygopalatine Ganglion
Atlanto-occipital release
Starting position at the head for lymph drainage
Freeing the nasal bones
Freeing the nasal bones
Anterior / posterior compression
Add compression slowly and remove it slowly

Anterior/Posterior Compression
Locate the Occipitomastoid Suture
Compression of the 4th ventricle- Thumbs on the occiput behind the suture

Hand position for CV 4

Easiest to have patient lift head and set it down on your hands

Follow the head in and resist it moving out for 3 minutes
Billing and Coding

Bill the appropriate E & M code
Add the -25 Modifier
Then bill by the number of regions
98925-98929
Must have documentation of somatic dysfunction
739.0-739.9

Billing and Coding

98925 – 1-2 regions
98926 – 3-4 regions
98927 – 5-6 regions
98928 – 7-8 regions
98929 – 9-10 regions
Billing and Coding

How many regions can you code here?

Thoracic Paraspinal Inhibition
Cervical Articulation
OA Decompression
Thoracic Inlet Release
Pterygopalatine Ganglion
Billing and Coding

Thoracic Paraspinal Inhibition
Cervical Articulation
OA Decompression
Thoracic Inlet Release
Pterygopalatine Ganglion

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- Head
- Neck
- Thoracic
- Upper Extremity
- Ribs
For a patient with allergies or sinusitis:
Bill appropriate office visit code
Document the presence of somatic dysfunction in the areas you are treating
Document your treatment of those areas and bill the appropriate procedure code