

Ultrasound Scan of the Occipital and Upper Cervical Region

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Keywords: Ultrasound, Cervical Spine, Occipital Nerves, Greater Occipital Nerve

The sonoanatomical knowledge of the upper cervical and occipital region is critical for the identification of structures involved in the pathophysiology of cervicogenic headache and neck pain. We propose a systematic caudo-cranial ultrasound scan using a paramedial transverse view.

The first relevant structure to identify is the Obliquus Capitis Inferior Muscle (OCIM) that in turn will allow us to locate the Great Occipital Nerve (GON), the C1-C2 joint, the C2 dorsal root ganglion, medial to the joint, and the Vertebral Artery, lateral to the joint.

Sonogram 1 demonstrates the great occipital nerve (GON) between the semispinalis capitis muscle (SMCEM) and obliquus Capitis Inferior Muscle (OCIM) and the C1-C2 joint. Aligning the transducer obliquely along the long axis of the OCIM, may allow for better visualization of the muscle.

With a cranial displacement of the probe, one can identify the posterior arch of C1 and the vertebral artery as it transverses from lateral to medial crossing the medial posterior aspect of the atlanto-occipital joint (sonograms 2 and 3).

Article Information

DOI: doi.org/10.30756/ahmj.2020.01.04

Article Type: Imaging Article

Issue: 01.04

Manuscript ID: 2019003

Received Date: Nov 6, 2019

Accepted Date: Nov 20, 2019

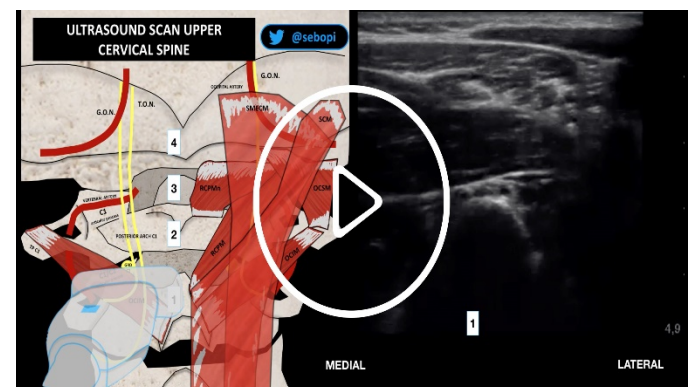
Published Date: Dec 5, 2019

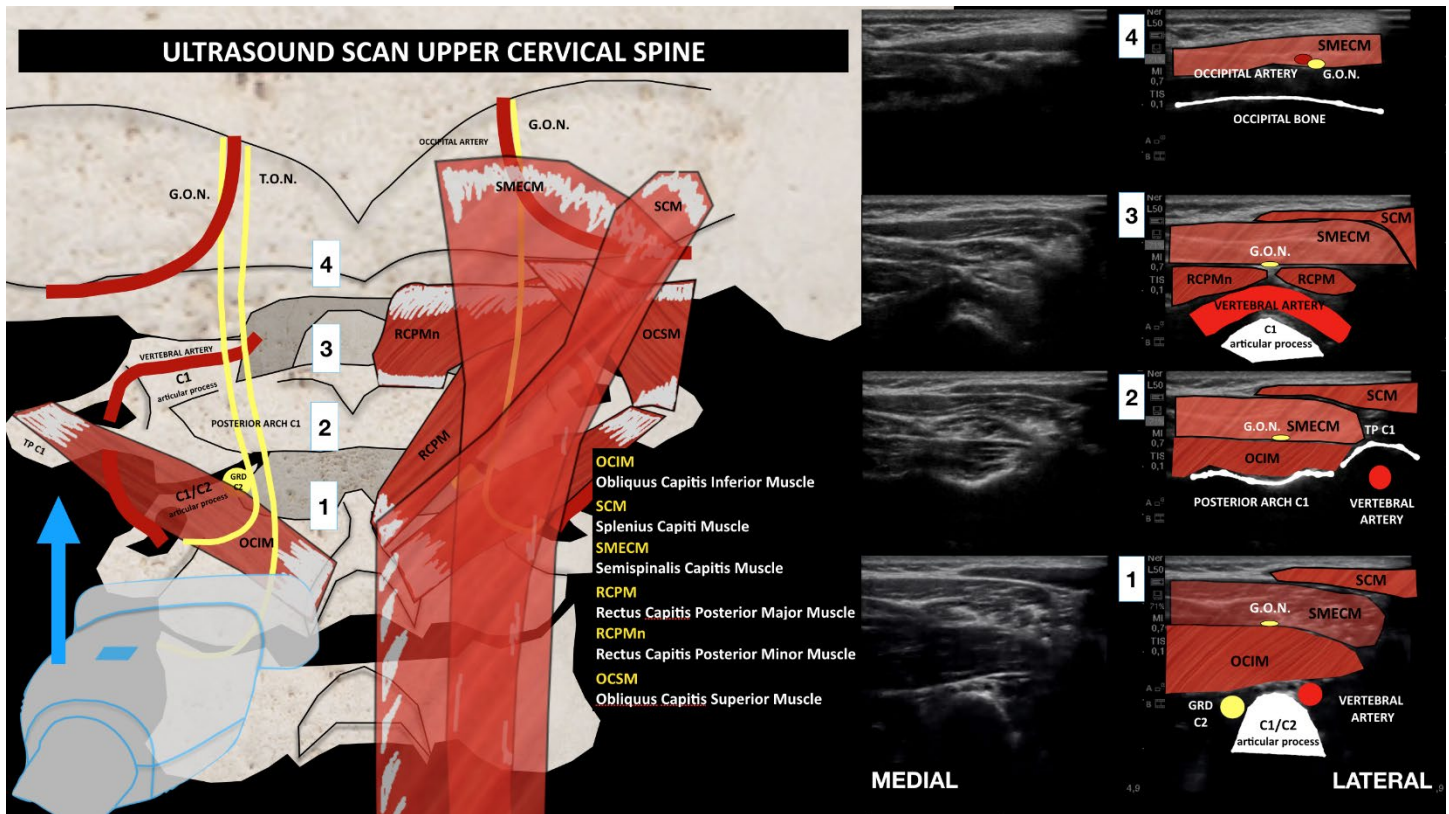
Recommended Citation: Boada Pie S. Ultrasound Scan of the Occipital and Upper Cervical Region. *Ann Head Med.* 2020; 01:04.

Finally, with more cranial scan, one can identify the occipital bone and the occipital artery near the distal branches of the greater occipital nerve and third occipital nerve more medially (Sonogram 4). With continued cranial scanning the GON will be more superficial as it pierces the trapezius aponeurosis.

Appendix/Attachment

<https://www.ahmjournal.com/submissions/videoceerv.m4v>





Disclosures

Conflict of interest: In compliance with the ICMJE uniform disclosure form, the author declared that no financial support was received from any organization for the submitted work. The author

declared that the has no financial relationships at present or within the previous three years with any organizations that might have an interest in the submitted work.

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