

Evidence Discussion (Neck 10.3)

Eagle Syndrome

If Eagle syndrome is suspected on exam and/or lateral neck xray, CT Maxillofacial or CT Neck are supported.^{1,2}

CT is the preferred modality for evaluation of bony structures and detection of abnormalities associated with calcifications.

Indications for cervicocerebral computed tomography angiography (CTA) or magnetic resonance angiography (MRA) of the head and neck vessels or include the diagnosis, characterization and/or surveillance of a variety of vascular conditions, including vascular compression of the internal or external carotid artery by an elongated styloid process (Eagle Syndrome).³

Risks of CTA include exposure to ionizing radiation, thus, magnetic resonance angiography (MRA) is available as an alternative to reduce radiation exposure. In addition, MRA is an alternative for patients with iodinated contrast allergies or other contraindications to iodinated contrast.^{3,4}

MRA, as an alternative modality, is noninvasive, and does not require iodinated contrast. Limitations include artifacts due to motion, slow or turbulent flow, and susceptibility effects, and claustrophobia. Additionally, MRA may not be a feasible option for those with contraindications to MRI such as incompatible pacemakers, cochlear implants, neurostimulators or other devices. In these scenarios, CTA may be the appropriate alternative.^{3,4,5}

References

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2. Kent DT, Rath TJ, Snyderman C. Conventional and 3-Dimensional Computerized Tomography in Eagle's Syndrome, Glossopharyngeal Neuralgia, and Asymptomatic Controls. *Otolaryngol Head Neck Surg*. 2015;153(1):41-47. doi:10.1177/0194599815583047
3. ACR ASNR SPR Practice Parameter for the Performance and Interpretation of Cervicocerebral Computed Tomography Angiography (CTA) Revised 2020
4. ACR ASNR SPR Practice Parameter for the Performance and Interpretation of Cervicocerebral Magnetic Resonance Angiography (MRA) Revised 2020
5. Expert Panel on MR Safety, Kanal E, Barkovich AJ, et al. ACR guidance document on MR safe practices: 2013. *J Magn Reson Imaging*. 2013;37(3):501-530. doi:10.1002/jmri.24011