

Evidence Discussion (HD-1.7)

General Guidelines-Other Imaging Situations

Neurologic evaluation of Nausea and vomiting

- In the evaluation of persistent, unexplained nausea and vomiting, an MRI brain is supported after a negative GI evaluation.^{1,2,3,6} Nausea and vomiting were reported as the initial symptom of a brain tumor in 5% of brain tumor cases.⁷ During the time course until diagnosis, nausea and vomiting is present in 25% of brain tumor cases.⁷

Screening for metallic fragments

- The American College of Radiology White Paper on MR safety advises that all patients who have a history of orbit trauma by a potential ferromagnetic foreign body for which they sought medical attention are to have their orbits cleared by either a plain x-ray orbit films (2 views) or by a radiologist's review and assessment of a prior CT or MR images obtained since the suspected traumatic event.^{4,12} Screening for the presence of a metallic aneurysm clips with plain films of the skull is also recommended.¹² Although CT is more sensitive than plain films, the radiation dose is greatly increased.⁴

3D Rendering

- 3-D/rotational angiography, as part of cerebral angiography, is also useful for radiation dose reduction during diagnostic and interventional neuroradiology procedures.⁵

Gender affirming head and neck surgeries

- As the field has evolved, more centers are using frontal sinus setback as 90% of patients require frontal bone osteotomy and setback, based on their frontal bone anatomy.^{8,9} For individuals requiring bony manipulation, a fine-cut, non-contrast craniofacial CT scan from the vertex to the hyoid bone is used to map the bony framework.^{8,9} Virtual surgical planning improves efficiency, safety, and accuracy for frontal sinus setback and mandibular angle reduction surgeries.¹⁰ CT neck is indicated for laryngoplasty surgeries.¹²

References

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