ABSTRACT

Objectives: The aim of this presentation is to highlight the ability of Magnetic Resonance Angiography (MRA) in the clinical applications of head & neck pathology.

Methods: Here we present few head and neck lesions with various pathology to illustrate the diagnostic value of MRA along with its influence on therapeutic decisions.

Results: MRA has the ability to delineate both the anatomic relationships between head & neck pathology with normal surrounding structures, the tumour vascularity and the tumor feeding vessels.

Conclusion: MRA provides sufficient information to aid and influence therapeutic decisions. It is recognized as an alternative to conventional angiography due to its non-invasive approach and less time consuming.

CASES PRESENTATION

CASE 1: AURICULAR HAEANGIOMA

Comment. A 19 year-old man presented with recurrent left auricular haemangioma. MRA was performed to evaluate the tumour vascularity and the feeding vessels. MRA revealed that the feeding vessels were derived from the left posterior auricular and occipital arteries. Surgical removal was performed and the external carotid arteries were temporarily clamped intra-operatively with minimal blood loss. Post-operatively repeat MRA revealed resolution of the feeding vessels.

CASE 2: INTRanasal HEMANGIOMA

Summary. A 15 year-old boy presented with polypoidal left intranasal mass associated with epistaxis. Pre-operative MRI & MRA revealed an enhanced tumour but no obvious feeding vessels. Based on this radiological finding the tumour was removed via endoscopically with minimal blood loss. Histopathological examination confirmed a diagnosis of haemangioma arising from the junction between left middle turbinate and lateral nasal wall.

CASE 3: Cervical SCHWANNOMA

Summary. A 41 year-old man presented with slow growing left cervical swelling associated with muffled voice and paresis of the left hypoglossal nerve. CT scan of the head and neck region revealed a left parapharyngeal tumour extending into the infratemporal fossa. MRI and MRA was performed to evaluate tumour vascularity and rule out carotid aneurysm. MRA showed normal feeding of the left internal and external carotid artery, however there were no obvious tumour blush or feeding vessels. Based on the findings surgical removal was performed safely via transcervical approach to assess the infratemporal fossa portion of the tumour. HPE revealed a diagnosis of cervical schwannoma.

CASE 4: JUVENILE NASOPHARYNGEAL ANGIOFIBROMA

Summary. A 13 year-old boy presented with left juvenile nasopharyngeal angiofibroma. MRI & MRA was done to assess the feeding vessels which derived artery from the left internal maxillary artery. The tumour was safely removed via transpalatal approach and the external carotid artery was temporarily clamped during the operation.

CASE 5: HIGH JUGULAR BULB

Summary. A 71 year-old lady presented with left pulsatile tinnitus for one year duration. Otoscopy showed a pulsating red mass behind the tympanic membrane. Based on the CT scan a provisional diagnosis of glomus tympanicum was made. MRI with MRA revealed a small outpouching mass at superior part of left jugular bulb. A diagnosis of paraganglioma was made following exploratory tympanotomy and surgical excision. Histological examination confirmed a diagnosis of glomus tumour.

REFERENCES
