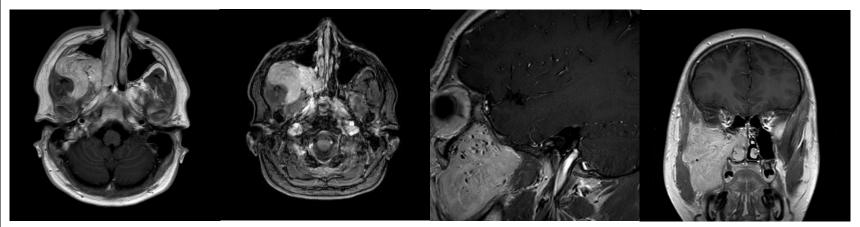
Head and Neck: Case 4

Prompt

Please give a radiology report of this patient.



GPT-4V

- 1. Axial T2-weighted image (Top Left):
- The image provides a cross-sectional view of the brain at the level of the eyes and the midbrain.
- The ventricles and sulci appear symmetrical, with no obvious expansion or compression.
- There are no apparent masses, cysts, or lesions in the visible brain tissue.
- Sagittal T1-weighted image (Bottom Left):
- The image provides a side view of the head, capturing the nasal cavity to the back of the skull.
- The cerebellum, brainstem, and spinal cord appear intact without visible compression or abnormal masses.
- The cerebral falx is visible and appears normal.
- 3. Coronal T1-weighted image (Bottom Right):
- The image provides a frontal view of the brain.
- The bilateral structures such as the lateral ventricles and basal ganglia appear symmetrical.
- 4. No obvious abnormalities or lesions are visible in this slice.

Prompt

Patient reports fullness in his right cheek. Note a progressively enlarging and painful right-sided buccal mass. Please give a radiology report of this patient based on the given images.

GPT-4V

MRI Findings:

- 1. Axial T2-weighted Image:
- There is a well-defined, hyperintense lesion in the right buccal region. The lesion is compressing adjacent structures but there seems to be no overt invasion.
- 2. Sagittal T1-weighted Image:
- The lesion is isointense to muscle on T1-weighted images.
- There's no obvious fat suppression or hyperintensity that would suggest a lipoma.
- The mass seems to be displacing surrounding structures but does not show clear signs of infiltrating them.
- 3. Coronal T2-weighted Image:
- The hyperintense mass in the right buccal region is even more clearly visualized in this view.
- The mass seems to be separate from the parotid gland, suggesting it might not be of parotid origin.

Impression:

- The imaging findings are suggestive of a cystic or fluid-filled lesion in the right buccal space. The differential diagnosis includes buccal space abscess, benign cystic lesion such as a dermoid or epidermoid cyst, or possibly a benign salivary gland tumor such as a mucocele or pleomorphic adenoma. Given the progressive and painful nature of the swelling, an infectious or inflammatory cause, such as an abscess, should be high on the differential.

Reference answer

Juvenile nasopharyngeal angiofibroma. There is an avidly enhancing soft tissue mass with increased flow voids originating within the sphenopalatine foramen. There is widening of the pterygopalatine foramen and pterygomaxillary fissure. There is a large component within the right masticator space extending anteriorly and laterally into the right buccal space. The pterygoid musculature is displaced posteriorly. There is mass effect upon the right maxillary sinus with anterior bowing of the posterior wall and bony remodeling, without invasion into maxillary sinus. A small component of the mass is present within the right nasal cavity and right sphenoid sinus. There is widening of the right inferior orbital fissure, without evidence of involvement of the orbital apex. No evidence of mandibular invasion or intracranial extension is identified.