



Simultaneous Lymphoma & Skull Base Carcinoma Ex-Pleomorphic Adenoma: A Hidden Cause for Facial Paralysis

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Introduction

- Carcinoma ex pleomorphic adenoma arises from primary or recurrent benign pleomorphic adenomas
- 11.6% of malignant salivary gland tumors
- Most commonly seen in the parotid gland (77%)
- Slight male predominance, 7th decade of life
- 20-25% with history of previously treated pleomorphic adenoma
- Most common presenting symptom is a firm, palpable mass with sudden enlargement
- 33% of patients with malignant parotid tumors develop facial nerve paresis or paralysis
- Facial nerve involvement portends worse tumor stage and prognosis

Methods

- Case report of a patient with simultaneous lymphoma and a nonpalpable carcinoma ex-pleomorphic adenoma of the parotid gland causing facial nerve paralysis at a tertiary care academic medical center

Case Presentation

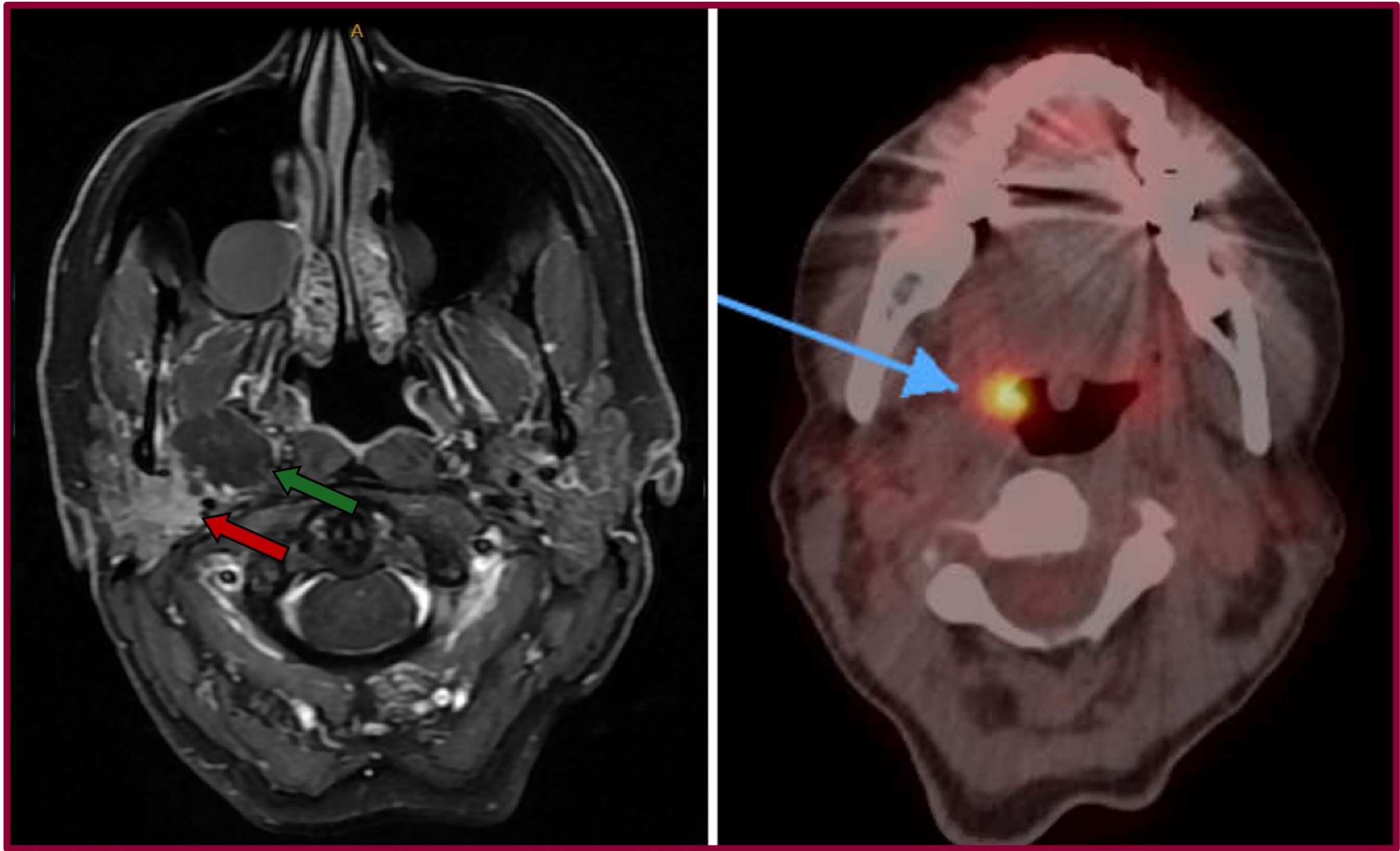
- 55-year-old woman with no significant PMHx
- Presented to an ENT with persistent right ear pain and facial paralysis
- On exam, no palpable parotid mass or otologic findings
- House Brackman IV/VI of the mid and lower right face, respectively
- Diagnosed with Bell's palsy and treated with steroids
- No improvement in facial function with steroids
- Referred to tertiary care center for further workup



Photos of patient demonstrating mid and lower facial palsy. Patient had a House Brackmann score of IV/VI.

Diagnostic Testing

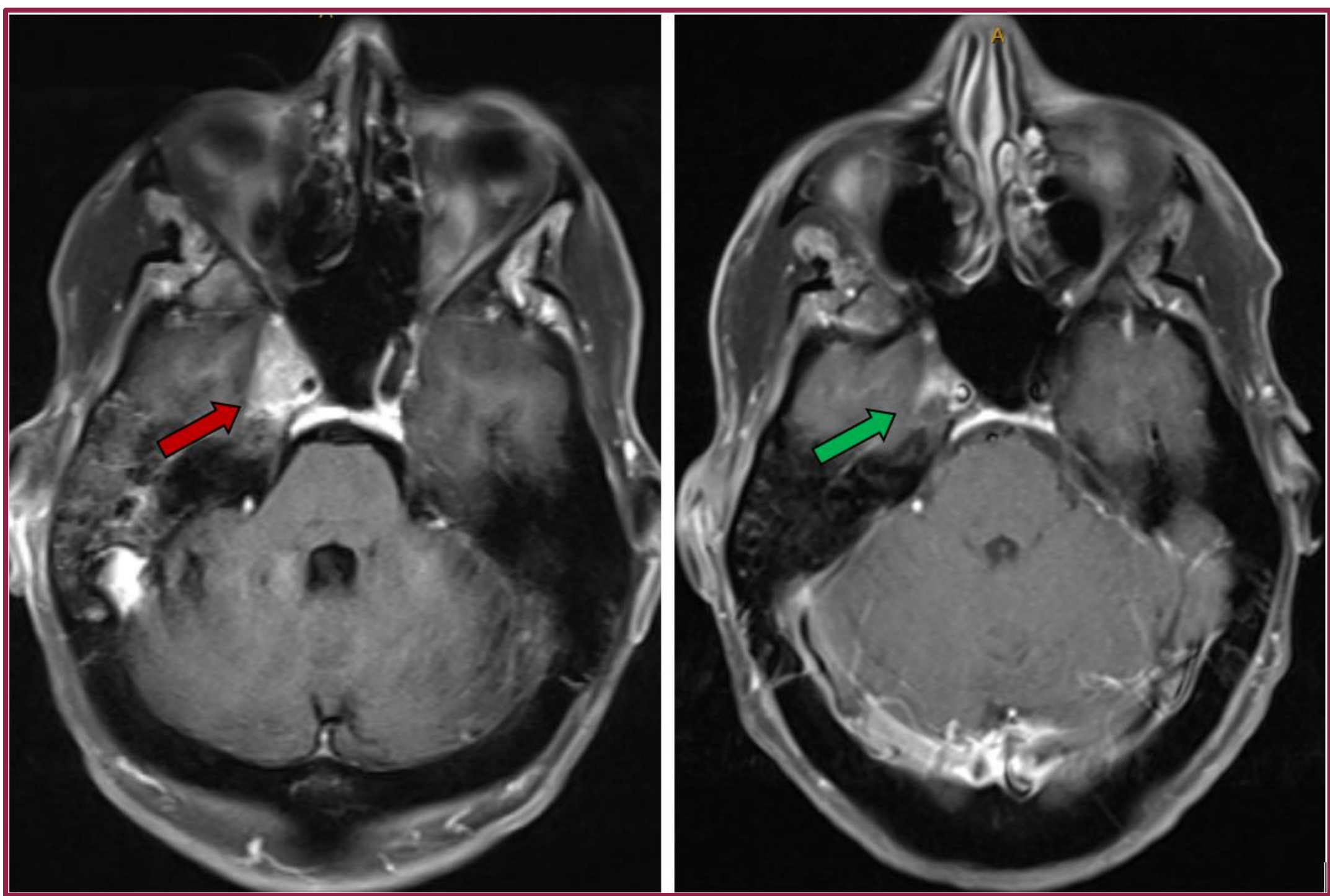
- MRI is considered superior to CT imaging in detecting malignancy and delineating soft tissue planes and nerve involvement
- This patient had an MRI and a PET/CT scan to evaluate potential metastatic disease (see below)
- FNA biopsy of the parotid mass revealed high-grade carcinoma and in-office biopsy of the right tonsil mass revealed lymphoma



(Left) Pre-op axial T1 post MRI: cystic deep lobe parotid mass (green arrow), homogenous component superficially (red arrow); (Right) PET-CT: increased FDG uptake at right tonsil

Treatment

- The patient underwent a right pre-auricular infratemporal approach, transmastoid facial nerve decompression with resection, total parotidectomy, neck dissection, ALT free flap, neuroorrhaphy, and interposition nerve grafting
- Facial nerve was transected proximal to stylomastoid foramen with negative margins
- Final pathology revealed carcinoma ex-pleomorphic adenoma (pT3N3b)
- Facial reanimation was performed with a 7 cm cable graft taken from a branch of the femoral nerve and connected to the buccal branch of the facial nerve
- The patient received adjuvant radiation therapy for her parotid malignancy and chemotherapy for her lymphoma.



(Left) Post-op axial T1 post MRI: enhancement in the right cavernous sinus concerning for tumor prior to chemoRT (red arrow) ; (Right) Post-op axial T1 post MRI : Interval decrease in right cavernous sinus enhancement s/p chemoRT (green arrow)

Conclusion

- Non-palpable parotid malignancies can be a cause of facial paralysis
- Carcinoma ex pleomorphic adenoma involves the facial nerve in 1/3rd of cases and carries a 5-year overall survival prognosis of 30-76% depending on primary or recurrent disease