Unilateral Warthin Tumor Mimics Cystic Pleomorphic Adenoma

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Case History: 35-year-old patient with gradually progressive, painless swelling in left parotid region, unremarkable history.

Case History: A 35-year-old patient presented with complaint of gradually progressive, painless swelling in left parotid region for 8 months. No history of fever and laboratory examination, past and family history was unremarkable. On examination, there was a smooth well marginated nontender swelling in left parotid gland. No evidence of enlarged cervical lymph nodes was seen.

Further noncontrast CT scan was performed, which revealed well-defined, well-circumscribed smooth marginated solid cystic lesion in superficial and deep lobes of left parotid gland, predominantly in posteroinferior part of gland, medially the lesion extends into stylomandibular tunnel (Figure 1). On postcontrast CT, irregular nodular enhancement of solid part was noted and in close relation to left external carotid artery and IJV, and antero-inferiorly retromandibular vein was compressed by the lesion (Figure 2). On noncontrast MRI, T2WI showed heterogenous signal intensity, T1WI images showed isointense signal within lesion and coronal showed slight hyperintense signal (Figure 3). There was no evidence of any enlarged cervical or intraparotid lymph nodes.

On basis of unilateral solid cystic lesion in middle-aged patient with irregular nodular enhancement of solid part of lesion with isointense signal on T1 and slight hyperintense signal on STIR images suggestive of two differential diagnoses were:

1. Cystic pleomorphic adenoma (due to unilateral solid cystic parotid lesion in middle-aged patient, enhancing solid part and no adjacent intraparotid and cervical lymph nodes)
2. Warthin tumor (due to irregular nodular enhancing solid part with isointense signal on STIR MRI)

Further ultrasound guided FNAC was taken, aspirated material appeared chocolate brown. On smear examination, oncocytes and lymphocytes cells were seen (Figure 4). Patient was operated on and histopathology revealed cystic spaces lined by a bilayer of oncocytic cells and abundant lymphocytes in the sub epithelial stroma (Figure 5).

Figure 1. Noncontrast CT (A, axial and B, coronal) images show well-defined, well-circumscribed smooth marginated solid cystic lesion (arrow) involving superficial and deep lobes of left parotid gland predominantly in posteroinferior part of gland, further medially the lesion extends into
Figure 2. Postcontrast CT (A, C, axial and B, D, coronal) images show irregular nodular enhancement of solid part (small arrow) and the lesion lies in close relation with left external carotid artery and IJV (large arrow) and antero-inferiorly retromandibular vein was compressed by the lesion.
Figure 3. On noncontrast MRI, T2WI axial (A) shows heterogeneous signal intensity, T1WI axial (B) shows isointense and STIR images (C, axial and D, coronal) images show slightly hyperintense signal intensity within lesion. No evidence of any enlarged cervical or intraparotid lymph nodes.
Figure 4. On USG guided FNAC, aspirated material appears chocolate brown. On smear examination, oncocyes and lymphocytes cells are seen.

Figure 5. Histopathology shows cystic spaces lined by a bilayer of oncocytic cells and abundant lymphocytes in the sub epithelial stroma.

Diagnosis: Left parotid warthin tumor

Discussion: A warthin tumor (or papillary cystadenoma lymphomatosum) is a benign sharply demarcated tumour of the parotid gland. It is bilateral in 10-15 percent of cases. They are the second most common benign parotid tumour (after pleomorphic adenoma) and are the most common bilateral or multifocal benign parotid tumour. It typically occurs in the elderly (6th decade). There is a recognized male predilection. Patients typically present with painless parotid swelling. It favors parotid tail region for its location. It has a greater tendency to undergo cystic change than any other salivary gland tumor. On ultrasound, it shows as a relatively well-defined, ovoid, hyper echoic mass with anechoic internal cystic areas. On CT, it can be often seen bilaterally and appear as a cystic lesion posteriorly within the parotid with a focal tumor nodule relatively well-defined cystic changes with no calcification. On MRI, T1WI show low to intermediate signal with cyst containing cholesterol components containing focal high signal and on T2WI heterogenous signal intensity, on STIR images, hyperintense signal intensity within lesion. On postcontrast CT or MRI, solid part shows enhancement. Differential diagnosis includes adenoma, benign (BLEL) in HIV, carcinoma, adenoid, parotid nodal metastasis and parotid non-Hodgkin lymphoma.

References:
