Solitary Metastasis of Pancreatic Carcinoma to Internal Auditory Canal

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INTRODUCTION
Cerebellopontine angle (CPA) lesions represent about 10% of all intracranial lesions. A large variety of lesions can present as CPA mass. Ninety percent of CPA lesions are either vestibular schwannomas or meningiomas, and among the remaining 10% CPA lesions, 1-2% represent metastatic lesions. Patients who develop metastatic CPA lesions usually have a known history of carcinoma. We present a case of pancreatic cancer metastasis to the internal auditory canal (IAC) initially diagnosed as a Bell’s palsy. The patient had no history of cancer and facial paralysis was the first symptom of his disease. A literature review and discussion regarding evaluation of metastatic IAC and CPA lesions is presented.

CASE PRESENTATION
54 y.o. otherwise healthy male with no known history of cancer presented with sudden left facial paralysis. He was initially diagnosed with Bell's palsy. Magnetic resonance imaging (MRI) revealed bilateral IAC enhancement. He was initially treated with Acyclovir and Prednisone. In the following months, the patient developed hearing loss, vertigo, tinnitus, and expressive aphasia. Follow-up scans revealed rapid enlargement of the left IAC lesion extending to CPA. The patient underwent suboccipital craniotomy and FNA biopsy of the lesion indicated metastatic adenocarcinoma, which was confirmed on the final pathology. Further investigation including whole body CT scan confirmed the presence of pancreatic adenocarcinoma. The patient was offered palliative treatment.

DISCUSSION
Metastatic CPA lesions are uncommon. To our knowledge, this is the first case of metastatic pancreatic cancer presenting as bilateral IAC lesions. Brackmann et al. reported a series of 1354 CPA lesions in which approximately 90% were acoustic neuromas. The remaining 10% lesions included meningiomas, cholesteatomas, other cranial nerve schwannomas, lipomas, choroid plexus papillomas and gliomas. Metastasis accounted for less than 1% of the lesions and included lung and breast primary tumors. Melanoma, prostate carcinoma, nasopharyngeal squamous cell carcinoma, lymphoma, neuroblastoma, and colon cancer have also been reported. In a series of 14 patients, Yuh et al reported 28% incidence of CPA metastasis as the first evidence of malignancy. Findings suggestive of metastasis included acute onset and rapid progression of symptoms, deficits of the seventh and/or eighth cranial nerve, bilateral involvement, and extracranial metastasis.

CONCLUSION
Metastatic IAC and CPA masses are uncommon. Bell's Palsy without clinical improvement is uncommon and requires further investigation. This case highlights the importance of considering metastatic pathology in patients with IAC lesions and rapidly worsening symptoms.

REFERENCES