CHEMODECTOMA OF THE MIDDLE EAR

Pages with reference to book, From 24 To 25

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INTRODUCTION

A case of Chemodectoma of the middle ear is reported.

CASE REPORT

A 55 year old housewife presented to the ENT department of JPMC for noises in the left ear and impaired hearing for 5 years. For the last one year she also suffered from discharge and blee4ing from the same ear. Past history was non-contributory. Physical examination showed that the left external auditory canal was filled with a smooth mass having congested blood vessels on it. Mastoid x-ray films showed partial sclerosis of mastoid air cells. A clinical diagnosis of aural polyp was made and mastoidectomy with polypectomy done. Microscopic examination of H&E section showed a tumor composed of irregular clusters and nests of polyhedral cells separated by scanty connective tissue containing endothelial lined vascular spaces. The tumor cells contained scanty eosinophiic cytoplasm and large round to oval vesicular to densely staining central nuclei (Figure 1).

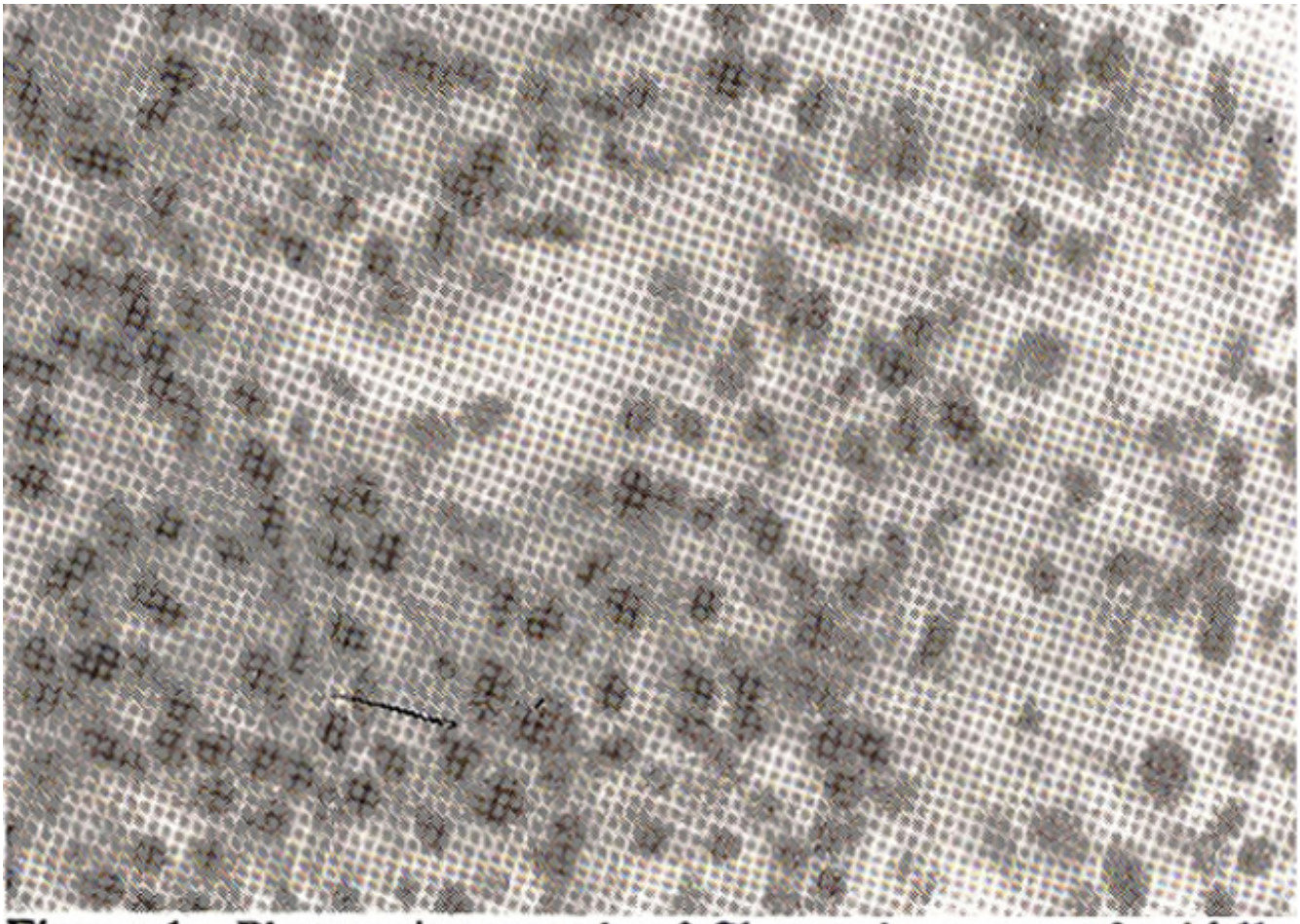

Figure 1. Photomicrograph of Chemodectoma of middle ear, showing nests of polyhedral cells separated by vascular channels. (H&E x 500).

With special reticulin stain, groups of tumor cells were seen surrounded by reticulin fibres (Figure 2).

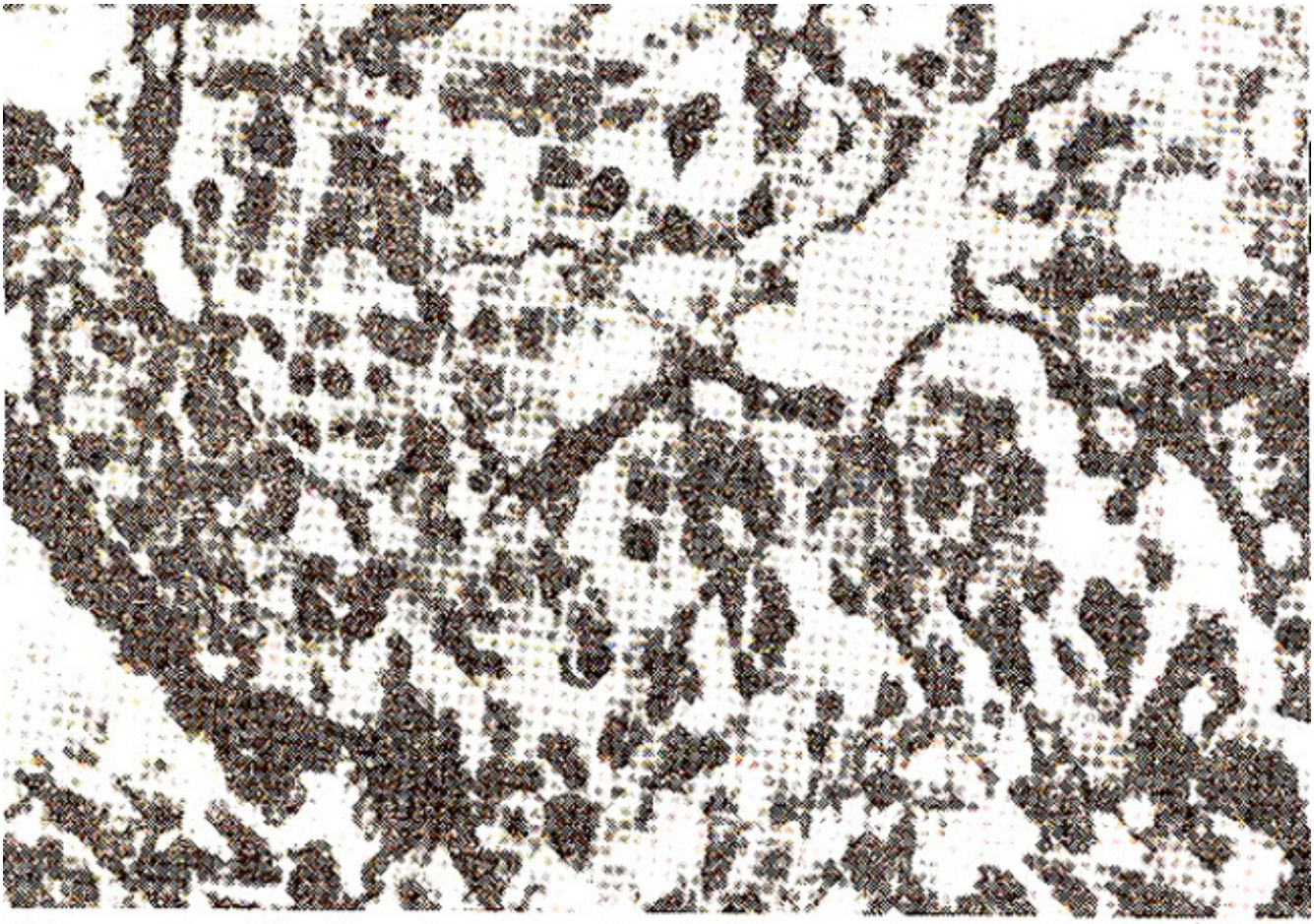

Figure 2. Photomicrograph of Chemodectoma of middle ear, alveolar pattern of cell orientation seen on reticulin staining (Reticulin x 500).

DISCUSSION

Chemodectoma (paraganglioma) is a rare tumor in general but it is the most common neoplasrn affecting the middle ear.[1] It arises from the non-chromaffin chemoreceptor tissue located in the middle ear. Other parts of the body where chemoreceptor cell nests are found are carotid body, jugular bulb, ganglion nodosum of vagus nerve, adventitia of ascending aorta, abdominal aorta and surface of lungs. All of these are of neural crest origin. They are responsive to changes in blood oxygen, carbondioxide and pH[1]. The chemodectomas are all histologically similar and are classified by their location. In the ear, those arising from the tympanic plexus on the medial wall of middle ear are called glomus tympanicum tumors while those arising in the adventitia of jugular bulb are referred to as glomus jugulare tumors[2]. Chemodectomas of the middle ear are benign, slow growing tumors that are locally invasive. Approximately 4% show a malignant change. They are more common in women and the peak incidence is about 50 years[3]. They are usually single but may be multicentric[4]. Multi-centric lesions show a familial distribution. The usual symptoms of chemodectomas of middle ear are diminished hearing, pulsating tinnitus, otalgia, otorrhoea, facial paralysis, other cranial nerve deficits, sensation of fullness or pressure in the involved ear. Biopsy is hazardous as they are highly vascular tumors but

computerized are helpful in tomography and angiography making a diagnosis.[2,5]

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