CHOLESTEROL GRANULOMA IN NECK — A RARE CASE

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INTRODUCTION

Cholesterol granuloma in the neck is a rare occurrence. It is basically a disease of temporal bone, Arising in Chronic suppurative otitis media. It is also reported in maxilla and mandible. In maxilla it is due to obstruction of antral ostia, haemorrhage with polypoidal mucosal disease or that an antral cyst may have developed a cholesterol granuloma in its walls as a result of cholesterol precipitation. A case report of cholesterol granuloma in the neck is reported in a 17 years female who presented with a mass in the left side of the neck.

CASE REPORT

A seventeen year female resident of Lachi, Kohat (Pakistan) was admitted in ENT unit of Lady Reading Hospital, Peshawar with one month history of swelling in the left upper side of neck, this swelling was tender initially, but later on it become painless, there was no associated fever and no other ENT problem. On clinical examination, there was a solitary swelling in the left side of the angle of the mandible. It was non tender, smooth, mobile measuring about 2" x 2" in size. There was no other swelling in the neck. The routine blood, urine and X-ray of neck were unremarkable. The examination of nose, postnasal space, mouth, oropharynx and larynx revealed no other pathology. Examination of the pharynx, larynx under anaesthesia was carried out and no primary lesion was found and finally biopsy from the fossa of Roseumullar and from the mass taken and sent separately for histopathology. The section taken from the nasopharynx showed nasopharyngeal mucosa lined by well differentiated epithelium, the lymphoid tissue revealed diffuse round cell infiltration, no evidence of malignancy was seen. The findings were consistent with chronic non specific inflammation. Section B taken from the mass in the neck showed wall of a cyst composed of fibro collaginous tissue with cholesterol crystals and focal lymphoid collection; the findings were consistent with "Cholesterol granuloma". Thyroid Scan was performed with Technetium 99 which showed a normal Thyroid with uniform tracer activity in both lobes and they reported that swelling was extrathyroidal. Finally the mass was excised in toto. On follow up there was no recurrence and she was disease free.

DISCUSSION

Cholesterol granuloma is reported mostly in temporal bone. The cholesteatoma is pathological entity and is often confused with cholesterol granuloma. This tumour seems to derive from an inflammatory process at the skull base that results in long erosion surrounding a cyst wall of inflam-

matory tissue. The origin of cholesterol granuloma is controversial, it arises from an inflammatory response of the temporal bone to an obstruction of the pneumatised air cells, heamorrhage into the air cells results in a foreign body reaction and progressive granuloma formation[2]. As the process develops bone is eroded by this expansile lesion, often involving the middle ear, the petrous apex and the cerebellopontive angle. Gatland DJ et al[3] (1988) reported a case of cholesterol granuloma in the maxillary antrum, they observed that cholesterol granuloma could be associated with obstruction of the antral ostia, haemorrhage into polypoidal mucosal disease or that an antral cyst may have developed a cholesterol granuloma in its walls as a results of cholesterol precipitation.

Hirshberg A et al[4] reported a case of cholesterol granuloma of the mandible, which manifested as a solitary radiolucent lesion in an edentulous area, they noted that there is lack of accurate data regarding its nomenclature and pathogenesis. Raveau V[5] reviewed the literature for cholesterol granuloma and showed that MRI allows the diagnosis of cholesterol granuloma in the presence of a non contrast enhanced, erosive solid mass of the apex of the petrous bone or middle ear cholesterol granuloma has a suggestive low signal intensity on T1 and T2 weighted sequences (cholesterol crystals, haemoglobin degradation products) these specific features eliminate the principal CT differential diagnosis particularly cholesteotoma, MRI is also useful for follow-up of treatment.

Shirataki et al[6] studied histopathologically the "Cholesterol granuloma reaction" in the sellar and juxta-sellar tumours, they classified it into three groups each of which also represented a step of process of organization.

Group-I. (Cholesterol clefts predominates in hemorrhagic and nectrotic foci). Group-II (Foreign body giant cells, macrophages, round cell infiltrations are present other than cholesterol clefts, signifying active organization). Group-III. (Numerous cholesterol clefts predominates in fibrous tissue). Cholesterol granuloma reaction is thought to develop as a secondary reaction to hemorrhage or tissue necrosis (pituitary adenomas) or to keratinization (Craniopharyngioma).

Cholesterol granuloma has been reported in the temporal bone, rarely in maxilla and mandible, but in our knowledge has not been reported in the neck, hence, Cholesterol granuloma in the neck swelling may be kept in mind in differential diagnosis of such swellings.

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