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PLEOMORPHIC ADENOMA IN A 8 YEAR OLD CHILD- A CASE REPORT

Pathology

Kanwardeep Kaur Assistant Professor, GMC Patiala.

Manmeet Kaur* Associate Professor, Department of Pathology, Doctors Campus, GGSMC, Sadik Chowk, Faridkot. *Corresponding Author

Amandeep Kaur Junior Resident GGSMC, Sadik Chowk, Faridkot.

ABSTRACT

Pleomorphic adenoma is the most commonly occurring tumor of the parotid gland (80-90%) in adults whereas the submandibular and sublingual pleomorphic adenomas are quite uncommon constituting only approximately 8-10%. The benign salivary gland tumors are rare in children. Here, we report a case of pleomorphic adenoma of submandibular salivary gland in a 8-year-old male patient.

KEYWORDS

INTRODUCTION

Salivary gland tumors account for 3% of the head and neck tumors [1]. They are more common in adults than in children. Their annual incidence is estimated to be around one case per million with less than 5% of the affected pediatric population [2],[3]. There is a paucity of clinical and biological details about pediatric salivary gland tumors and their clinical behavior in the literature [4]. The term pleomorphic adenoma was suggested by Willis and is also known as benign mixed tumor [5],[6]. PA is a benign mixed tumor composed of epithelial and myoepithelial cells arranged in various morphological patterns, demarcated from the surrounding tissues by a fibrous capsule [7]. Grossly the tumor forms a rubbery, tan white firm mass with bosselated surface and may grow to a large size. Although the tumor tends to be well circumscribed, small extensions (pseudopodia) can often be seen protruding.

Case Report

A 8-year-old boy came to our hospital with a gradual onset insidious swelling near the right angle of the mandible since past two years and growing rapidly in the past 2 months. Ultrasonography of the right submandibular gland showed a hypoechoic area. Fine needle aspiration cytology (FNAC) was performed and showed admixed epithelial, myoepithetial and mesenchymal tissue elements. After obtaining the informed consent of the patient, excision of right submandibular gland was done and specimen sent to pathology department.

Grossly, the tumor mass was well demarcated, encapsulated, with a grey-white cut surface (Figure1). Histopathology revealed a well encapsulated, highly cellular mass with interspersed epithelial cells and myoepithelial cells. Presence of mucoid material between the tumor cells imparted a myxomatous background. Chondroid areas were also seen (Figure 2).

Figure1- Gross specimen of resected tumor mass

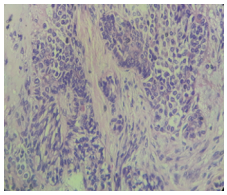

Figure2- Photomicrograph showing epithelial cells in sheets and cords with chondro myxoid stroma (H&E stain,400X)

DISCUSSION

Pleomorphic adenoma (benign mixed tumor) is the most common tumor of salivary glands. It often occurs in women in their 30's, but can present at any age as a painless, slow growing tumor. Most (90%) occur in the parotid gland, with 10% in submandibular gland, and only rare tumors in the sublingual gland. World Health Organization (1972) defined PA as a well-defined tumor characterized by its pleomorphic or mixed appearance. There is intermixing of the clearly recognizable epithelial component with mucoid, myxoid and chondroid component [8].

Grossly, they are well demarcated, partially encapsulated, with a gray-white cut surface. Tumor extension into adjacent tissue may be subtle. Histologically, there are often tongue-like protrusions into the surrounding salivary gland. Pleomorphic adenoma is biphasic with epithelial and mesenchymal cells. The epithelial cells are usually glandular and occasionally squamous, spindle or oval, with large hyperchromatic nuclei. A myoepithelial layer may be present. The stroma is usually myxochondroid or hyaline. Mucin is often present. There is no atypia, no mitotic figures and no necrosis.
Surgical excision with an adequate margin of normal surrounding tissue is the treatment of choice for PA. Surgical excision with an adequate margin of normal surrounding tissue is the treatment of choice for PA.

CONCLUSION

Salivary gland tumors are an exceedingly rare entity in pediatric age group. Surgery is the mainstay of the management of benign salivary gland tumors. Salivary gland neoplasms can occur at any site where salivary tissue is present. Pleomorphic adenoma is the commonest salivary gland tumor characterized by diverse histomorphological features. Early diagnosis and treatment plan entails thorough history taking, clinical examination, coupled with radiographic and histopathological findings.

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