

Nasopharyngeal Hairy Polyp – A Rare Case Report**Dr. P. Kumuda Chalam¹, Dr. Nagarjuna Chary², Dr. A. Ramya Priya Darshini³, Dr. M. Vishnu Vardhan Reddy⁴**¹Professor of Pathology, Govt ENT hospital, Hyderabad, Telangana, India²Associate Professor, of Pathology, RIMS Adilabad, Telangana, India³Senior Resident of Pathology, Govt ENT hospital, Hyderabad, Telangana, India⁴Professor of ENT, Govt ENT hospital, Hyderabad, Telangana, India***Corresponding author**

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Abstract: Nasopharyngeal hairy polyp (HP) is a developmental anomaly composed predominantly of ectodermal and mesodermal tissue but lacking endo dermal-derived tissues. Hairy Polyp (HP) is relatively rare and has an incidence of 1 in 40,000 live births. We report a 30 day old female baby brought to the outpatient department with an oral cavity mass detected accidentally by the care taker, Grandmother. Endoscopic examination revealed a pedunculated mass protruding from the nasopharynx, arising near Right Eustachian tube orifice. Excision of the mass was done. Histopathological examination revealed features of Hairy Polyp.**Keywords:** Hairy Polyp, Nasopharyngeal, Rare Case.

INTRODUCTION:

Hairy polyps (HP) are rare benign tumors usually appearing during the early years of life [1]. Hairy polyps represent the most primitive form of teratoma arising from two germinal layers, the ectoderm and mesoderm [2]. Hairy Polyp is relatively rare and has an incidence of 1 in 40,000 live births [3].

CASE REPORT:

A 30 day old female baby was brought to the ENT outpatient department, with a mass detected accidentally, by the care taker, Grandmother deep inside the mouth. Oral and Endoscopic examination revealed a pedunculated mass protruding into the nasopharynx arising near Right Eustachian tube orifice. The baby was otherwise healthy. A clinical diagnosis of Nasopharyngeal Dermoid was made. Routine investigations were within normal limits. Transoral excision of the mass was done and was submitted for histopathological examination.

Gross examination:

A pearly gray, smooth, globoid polypoidal mass with a stalk measuring 3x2x1 cm. Another very tiny gelatinous mass was also received. Cut Section of the polypoidal mass showed homogenous solid grey white areas with tiny yellow specks of fat (Fig1).

Microscopy of the larger polypoidal mass showed a combination of ectodermal and mesodermal tissues with surface lined by non keratinizing stratified squamous epithelium along with numerous pilosebaceous structures, sweat glands and many small calibered thin walled blood vessels within the sub epithelial zone. Deeper layers showed lobules of adipose tissue and bundles of skeletal muscle fibers, a large focus of calcified bone tissue. Smaller gelatinous mass and stalk region of polyp revealed benign loose mesenchymal tissue. There was no necrosis or significant mitosis (fig1). Based on the characteristic microscopic findings, a diagnosis of a nasopharyngeal hairy polyp was made.

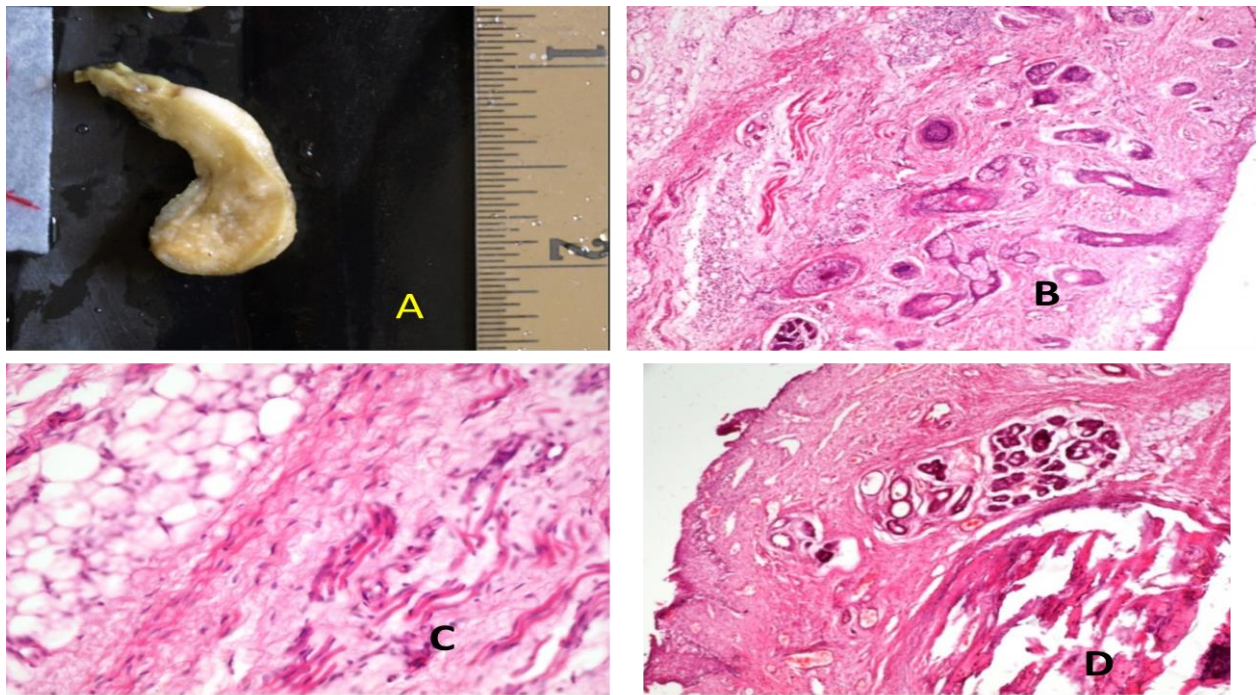


Fig. 1: A: Gross appearance, B (Scanner): A lining of stratified squamous surface epithelium with underlying pilosebaceous units. C (100x): Fibro adipose tissue and bundles of skeletal muscle fibers, D (100x): Skin adnexae and Calcified bone tissue.

DISCUSSION:

Hairy polyps (HP) are rare benign tumors usually appearing during the early days of life [1]. Hairy polyps or dermoids represent the most primitive form of teratoma arising from two germinal layers, the ectoderm and mesoderm [2]. Hairy Polyp is relatively rare and has an incidence of 1 in 40,000 live births. So far 180 cases have been reported in literature [4]. Only 12 cases with Eustachian tube origin were reported till 1999 [5]. Hairy polyps are more common in females as compared with males with a ratio of 6:1 [6]. Although usually present at birth, they can appear at any age the oldest being 71 years. HPs usually present with respiratory and feeding problems, drooling, respiratory distress, hemoptysis, coughing, otorrhea, hearing loss, vomiting and recurrent ear infections rhinorrhea, recurrent cough and failure to gain weight can also occur in children [3,4,7]. In adults it commonly presents with snoring, recurrent epistaxis, dysphagia and cough [3, 8, 9].

HP of naso-oropharynx mostly originates from lateral wall of nasopharynx, Eustachian tube, tonsils, palatal arches and soft palate [3]. Eustachian tube was thought to be excessively rare but it is more common than previously thought with increasing use of nasal endoscopes [10]. These lesions are rarely associated with other congenital malformations such as cleft palate, absent uvula, auricle deformities, facial hemi hypertrophy, ankyloglossia, and atresia of the carotid artery [9].

Computed tomography (CT) and magnetic resonance imaging (MRI) can differentiate and can rule out any intracranial or pharyngeal extension of lesion and evaluate Eustachian tube and middle ear involvement [11]. Magnetic resonance imaging (MRI) aids diagnosis and surgery planning by delineating the characteristics and extent of the mass and its relationship to the vascular and muscular structure [1].

The first reported case of hairy polyp was recorded in 1784. Pathogenesis of HP is controversial. In 1918, Kelly proposed that hairy polyps are epi blastic in origin and represent pluripotential tissue that escaped normal control mechanisms before the fourth week of gestation, leading to the development of a disorganized mass [9]. Hairy Polyps may be best classified as choristomas. Choristomas contain normal tissue in an anatomically foreign region [7,12]. Badrawy et al, in 1973, suggested that Hairy polyp (HP) arises from either the segregation of epithelial and mesodermal elements during the fusion of the lateral palatine process or from the incomplete resorption of the buccal nasopharyngeal membrane [9,13]. HP can be differentiated from Teratomas by tri-germinal origin and while hamartomas can be identified by the presence of single germ cell layer [3]. The histopathologic findings of stratified squamous epithelium, adnexal structures, adipose and cartilage tissues resemble congenital accessory tragus and may be considered a branchial arch anomaly [14].

The differential diagnosis is mainly based upon location as well as age and includes choanal

atresia, meningocele, encephalocele, glioma, craniopharyngioma, rhabdomyosarcoma, neuroblastoma and Rakthe's cleft cyst [4]. The commonest clinical differential diagnosis of a naso/oropharyngeal teratoma is an encephalocele. This is readily distinguishable from a naso/oropharyngeal teratoma, as it transilluminates. Other differential diagnoses include teratomas, chordomas, hamartomas, haemangiomas, gliomas, neurofibromas.[8]Microscopically, these differential diagnosis do not pose significant challenge except for closely related entities such as teratomas, hamartoma and dermoid cysts. Teratomas are ruled out by the presence of endo dermal derivatives. Hamartomas are ruled out by the presence of single germ layer (usually mesodermal) derivative and dermoid cysts by presence of keratin flakes [4].

The treatment of choice for hairy polyp is surgical excision. Almost all patients recover uneventfully after surgical excision [4]. Malignant alteration/transformation has not been reported within these tumours. Twenty five percent of patients die before surgical intervention is possible and the mortality rate is between 9.7% and 17% despite surgical intervention.[7]Hairy Polyp can potentially induce a life-threatening event [15].

CONCLUSION:

We report a rare case of Nasopharyngeal Hairy Polyp accidentally discovered by the care taker; Grandmother, in a 30 days female baby. Even in asymptomatic case like the present case, surgical intervention is mandatory as the possibility of auto amputation will result in a life-threatening event.

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