

EPIDERMOID CYSTS OF HEAD AND NECK

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ABSTRACT: BACKGROUND: Epidermoid cysts are ectoderm lined inclusion cysts which can be present anywhere in the body, but are rare in head and neck. Objectives: Although only 7% of the epidermoid cysts occur in head and neck region they are a part of differential diagnosis of neck swellings. Materials and methods: Cases which were proven as dermoid or epidermoid cysts by FNAC or by histopathology. Observation: Male patients were more affected than female patients. **CONCLUSION:** Complete removal should be carried out to prevent recurrence.

INTRODUCTION: Dermoids and epidermoid are ectoderm lined inclusion cysts that differ in complexity. Epidermoid contain squamous epithelium only whereas dermoids contain hair, sebaceous and sweat glands along with squamous epithelium. Both arise from trapped pouches of ectoderm, near normal folds or from failure of surface ectoderm to separate from the neural tube. These slowly expanding, unilocular cystic masses usually produce mild symptoms¹. Only 7% of them occur in head and neck region². They commonly occur in the orbit, calvarial diploic space and intracranially¹. In this study we present a series of dermoid and epidermoid cysts who presented to our institution over a period of one year.

MATERIALS AND METHODS: This was an observational study carried out in the department of otorhinolaryngology, Sri Siddhartha Medical college, Tumkur, Karnataka from July 2012 to June 2013. A total of 6 patients of the 3432 out patients were included. In the same period 94 cases of dermoid and epidermoid cysts were diagnosed in various departments of our institution.

Patients aged more than 16 years who presented with longstanding swelling in the head and neck region, which were proven as dermoid or epidermoid cyst either by FNAC or histopathological examination were included in the study.

The selected patients were subjected to detailed history followed by complete clinical examination. All patients underwent either ultrasonography or computed tomography over the region of the swelling. They also underwent FNAC of the swelling and the diagnosis of dermoid or epidermoid cyst was made. Patients later underwent surgical excision and the diagnosis was confirmed by histopathology.

PROCEDURES: Patients with post aural epidermoid cysts underwent excision of the lesion through post aural approach (Wilde's incision) under local anaesthesia with sedation. Patients with epidermoid cyst in the parotid region and pre auricular region underwent excision through standard parotidectomy approach. In case of epidermoid cyst over the maxilla, sublabial approach was followed.

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OBSERVATION: In our study the age of patients varied between 20 years and 60 years. They were no patients who were above 61 years.

Age group	No. of cases	Percentage
21-30	2	33.3%
31-40	2	33.3%
41-50	Nil	0%
51-60	2	33.3%

In this series three groups had 2 patients each. There was no patient belonging to the age group of 41-50 years.

The age group of out patients during that period was as follows.

Age group	No. of out patients	Percentage	No. of cases	Percentage
21-30	549	16%	2	0.36%
31-40	755	22%	2	0.26%
41-50	961	28%	Nil	0%
51-60	412	12%	2	0.48%
61<	755	22%	Nil	0%

The chi-square test done shows the difference between the age-group prevalence is not significant.

Sex distribution

In this series there were 5 male patients and one female patient.

Sex	No. of cases	Percentage
Males	5	83.3%
Females	1	16.7%

Sex distribution among our out patients was as follows.

Sex	No. of out patients	Percentage	No. of cases	Percentage
Males	1842	53.7%	5	0.27%
Females	1590	46.3%	1	0.062%

The Odds ratio is 4.31. That is males have 4.31 times more chances of getting epidermoid cyst as compared to females. And the chi-square is significant at $p < 0.0001$.

Site distribution: In this series there were two patients with epidermoid cysts in the post auricular region, two patients in the parotid region and one each in the pre auricular and over the maxilla.

Site	No. of cases	Percentage
Post auricular	2	33.3%
Parotid	2	33.3%
Pre auricular	1	16.7%
Over the maxilla	1	16.7%

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DISCUSSION: Epidermoid are derived from ectoderm, but they are inclusion cysts that are lined only by squamous epithelium. A dermoid is also an ectodermal inclusion cyst, but it contains more complex tissues which are also derived from ectoderm. Teratoma need not necessarily contain tissues derived from all three germ layers. A teratoma can be defined as a true neoplasm that contains tissues that are either foreign to the primary site of origin or histologically diverse and represent more than one of the embryonic germ layers. The designation of teratoma may be appropriate even for a lesion with tissues derived from a single embryonic germ layer, if the tumor shows histologically divergent differentiation. Such teratomas can be found in the head and neck and can be purely ectodermal¹.

Epidermoid cysts can be of congenital or acquired type. Congenital type is due to entrapment of ectodermal substance between the midline fusion of first and second branchial arches during third and fourth intrauterine life. Acquired type cysts usually occur due to infection around pilosebaceous follicle and sometime deep implantation of epidermis as a result of penetrating or blunt injury. It is slow growing and non tender mass. When present in dermis, it raises epidermis to produce a firm elastic dome-shaped protuberance which is mobile over the deeper structures. They grow slowly and may become inflamed and firm time to time. Suppuration may occur². Manoharan et al reported post auricular sinuses are the most common etiology for recurrent post aural abscess followed by dermoid cyst³. Ravindranath et al reported epidermoid cyst to be most common in the lateral side of the neck and gingiva followed by the forehead region⁴. Dhabholkar et al reported 3 cases of dermoid cysts out of which 2 were located in the floor of the mouth and another in the midline of the neck⁵. Ultrasonography is the best investigation for these types of cyst. It is economical, reliable and without radiation exposure. Surgical excision of the cyst is often required and the entire cyst wall is removed to prevent recurrence. Incomplete removal is common if attempted in the presence of recent infection².

CONCLUSION: Although only 7% of the dermoid and epidermoid cysts occur in head and neck, they form an important differential diagnosis of head and neck swellings among adults. Surgical excision is required and histopathological examination should be mandatory. Complete removal must be carried out to prevent recurrence.

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Fig. 1



Fig. 2



Fig. 3

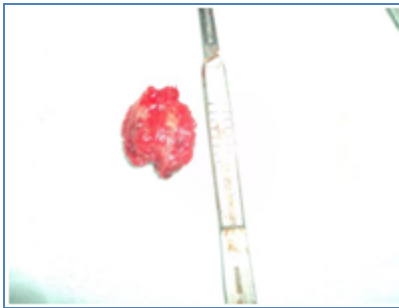


Fig. 4

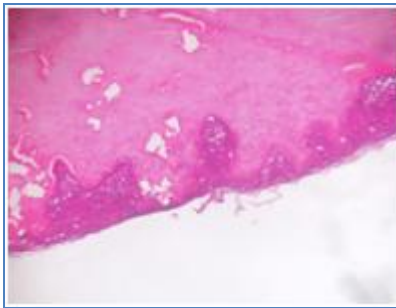


Fig. 5



Fig. 6

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