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RESEARCH ARTICLE

LARYNGEAL GIANT CELL TUMOUR: A CASE REPORT.

*Jasif Nisar¹, Salma Gul², Aftab Ahmad Rather¹ and Rauf Ahmad¹.

1. PG Scholar, ENT, HNS, Postgraduate department of ent, hns, government medical college, srinagar.
2. Pathologist, Postgraduate department of ent, hns, government medical college, srinagar.
3. Professor and Head, Postgraduate department of ent, hns, government medical college, srinagar.

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Abstract

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Introduction:-

Giant cell tumour (GCT) is classified as a benign bone tumour, and it represents 4 to 9.5% of all bone tumours and 20% of all benign bone tumours¹. It occurs in 20- to 45-year-old individuals, with a slightly higher predominance in women². The tumour is frequently identified at the distal femur, proximal tibia, distal radius, proximal humerus, and sacrum³. Primary giant cell tumours of the larynx (GCTL) are very rare. Our review of the literature discovered 31 cases of GCTL reported since Wessely presented the first case in 1940⁴. Herein, we report a new case of GCTL

Case Presentation:-

A 65-year-old man presented to our Department of ENT & HNS SMHS, Srinagar with a 5 -month history of gradually worsening hoarseness of voice and anterior neck mass 4 months.



FIG 1:- Image showing patient with external mass and 70 degree hopkin rod examination and total laryngectomy specimen of same patient

On physical examination, a firm and fixed mass measuring 2-3 cm at its maximum diameter was noted in the left region of the cricoid. 70 degree hopkin rod examination revealed a submucosal swelling of his left vocal fold with fixed left hemilarynx. The laryngeal mucosa did not appear to have an ulcerative or hemorrhagic lesion (Figure 1).

Corresponding Author:- Jasif Nisar.

Address:- PG Scholar, ENT, HNS, Postgraduate department of ent, hns, government medical college, srinagar.

A computed tomography (CT) scan of his larynx (figure 2) showed expansion and involvement of cricoid on left side, crossing to opposite side.



Fig 2:- CT imaging and histopathology slide of same patient

Histopathological findings obtained by incisional biopsy of external neck swelling supported a diagnosis of giant cell tumour figure (2). We performed total laryngectomy because the tumour involved more than half of the cricoid cartilage. Pleomorphic giant cells were absent. Mitotic figures were absent, the lack of cytological atypia. Histopathological findings yielded a diagnosis of “giant cell tumour.” The patient has been well following total laryngectomy. Histological examination revealed a cellular mononuclear eosinophilic stromal component, and multinucleated osteoclast-like giant cells were.

Discussion:-

Giant cell tumours (GCTs) are relatively frequent skeletal tumours that occur mainly at the distal end of the femur and the proximal end of the tibia. In the head and neck region, GCTs are found mainly in the maxillary region⁵ and at the base of the skull⁶. GCTs rarely arise from the cartilaginous laryngeal skeleton. The first case was published by Wessely in 1940⁴ and, after that study, a review of the literature uncovered 31 cases of GCTL^{4,7-10}. Nishimura et al. reported¹¹ that the age at presentation averaged 41.7 years and ranged from 23 to 60 years. The male/female ratio was 9:1, whereas GCT of the bone is more frequent in women. The most typical clinical presentation, hoarseness and then anterior neck mass, does not differ substantially from that of other laryngeal malignancies. Radiologic investigations do not usually aid in differentiating GCT of the larynx from other neoplasms, so the diagnosis of GCT is established with an open biopsy. The common head and neck sites for these tumours correspond to the cranial bones formed by endochondral ossification. The laryngeal skeleton is primarily composed of hyaline cartilage until approximately the second decade of life, at which time it may gradually begin to be replaced by bone. This occurs at different rates in different individuals but occurs earlier in males¹². The treatment of GCTs is controversial, and no consensus exists on their management. A review of the literature reveals that the majority of patients were managed surgically. Surgical excision of the tumour yielded excellent outcomes, but drawbacks include complications with voice quality. Bell et al.³¹ advise radiotherapy. In this context, Rudert¹³ has pointed out that a large proportion of radio-induced sarcomas were GCT of the bone, treated primarily with radiotherapy. It is difficult to estimate the risk of inducing a post irradiation sarcoma in GCT because of the small number of cases described in the literature. Radiation has been used as an adjuvant treatment in some cases, but the general consensus is that it is not needed and does not significantly affect outcome. GCT of the bone is a locally osteolytic tumour with variable aggressiveness. In rare cases, pulmonary metastasis can be observed¹⁴. Additionally, Coyas et al. reported¹⁵ that GCT of the larynx has been described as being malignant. The tumour appeared to arise from the soft tissue of the left vocal cord, and an osteocartilaginous origin was not documented. It is reported to have had pleomorphic histologic features. The tumour was characterized by multiple recurrences in spite of local excision and subsequent irradiation. It eventually involved the overlying skin. Although interpreted as a “metastasis,” it may actually have been soft tissue seeding. The patient has had no recurrence during 1 year of follow up. This case is unusual with respect to its soft-tissue origin. However, even if it is accepted as a GCT of the soft tissue of the larynx, recurrence and implantation into adjacent soft tissue did not produce an adverse clinical outcome. If comparisons are drawn with GCT of the skeleton, similar clinical courses exist^{16,17}.

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