An Unusual Massive Head-Neck Tumor and its Surgical Management

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Abstract

An unusually massive (15cm x 15cm x 15cm) and heavy tumor, (2.85 kg) one of the largest of its kind, was present in a sixty years old male patient who attended the E.N.T. out-patient department. The patient was Australia antigen positive. The case presented a surgical challenge because of its large size and skin adherence. Complete excision of the tumor and closure of the resultant facial defect, (5cm. x 5cm) with split-thickness skin graft was the treatment modality followed. There is no recurrence, and the prognosis appears to be good.

Key Words

Head-neck tumour, Pleomorphic adenoma.

INTRODUCTION

Salivary tumors represent about 3% of all neoplasms. Approximately 80% are located in the parotid, 10% in the submandibular gland, and the remaining being distributed in minor salivary glands (Snow G.B. 1979).

In the parotid gland, 80% tumors are benign and out of these 80% are pleomorphic adenomas and the rest being a conglomeration of monomorphic adenomas, Warthin's tumour, oxyphil adenoma, and vascular swellings. Foote F.W. and Frazell E.I. (1953) have given classification of salivary tumors, providing a comprehensive account of their natural history. Benign tumor mainly arises in lower posterior portion of gland. The mixed tumor is soft in consistency, with myxomatous appearance and may be the seat of cystic or haemorrhagic degeneration, which is susceptible to rupture when handled too enthusiastically.

It is known that the surrounding parenchyma is compressed by the tumor to form a false cap-

sule, which may be incomplete and the tumor is seen projecting through these dehiscences as bosselations, which contact the surrounding gland tissue (Eneroth C.M. 1964). The tumor of superficial lobe is removed by superficial parotidectomy, and deep lobe tumor is removed by total conservation parotidectomy (Shaheen O.H. 1986). The recurrence is noted by Patey D.H. and Thackray A.C. 1957-58, following parotidectomy due to seeding by mixed tumor. Rafla S. (1970) noted reduced recurrence, when post-operative radiotherapy was given.

Documentation of investigations and management of an unusual huge, (15cm x 15cm x 15cm) and heavy (2.85 kg) parotid tumor with cystic degeneration is made in this case report.

Case report

A sixty year old male farmer presented to us with a gradually increasing swelling over right

infra-aural region and cheek since 18-20 years (Fig. 1). There was no history of trauma, pain in the swelling, and sudden increase in size. Jaw movements were not restricted, and there was no history suggestive of facial palsy. There were no ear, nose complaints and no deglutition difficulty. The patient never had high grade fever, during the present illness.

Fig. 1 Front view of the massive tumor.

The clinical examination revealed a huge, spherical swelling approximately 15cm x 15cm x 15cm in size, on the right side of face, extending anteriorly to angle of mouth, and posteriorly upto tip of mastoid. Superiorly it was extending upto zygoma, elevating the ear lobule (Fig. 2). while inferiorly, merging with the angle of mandible (Fig. 3). Skin over the swelling was smooth, thin, tense and shiny. There were no signs of inflammation and ulceration. Patient did not have trismus and facial palsy. No pulsations could be seen over the swelling.

Fig. 3 Inferolateral view of the massive tumor

Fig. 2 Lateral view of the massive tumor.

On palpation, the swelling was found to be non-tender, cystic, and the local temperature was not raised. No bruit was felt over the swelling and it was non-translucent. The swelling could be moved over the ramus of mandible on clenching the teeth. Intra-oral examination, indirect laryngoscopy, and ear and nose examination revealed no abnormality. There was no cervical lymphadenopathy.

Management

Blood investigations were done. Patient was Australia antigen positive. VDRL and HIV tests were negative. Conventional radiology showed

Fig. 4 Specimen of the tumor en mass, with adherent skin.

no abnormality. Mixed picture of solid tumor with cystic degeneration was observed on the ultrasonography. Fine needle aspiration cytology showed haemorrhagic aspirate.

For excision of the tumor, Blair's incision was taken. The tumor was involving both the superficial and deep lobes of parotid gland with extensive fibrosis. The tumor was separated from surrounding structures en mass. (Fig. 4) The overlying skin was thin, shiny and stretched out. It was closely adherent to the tumor and so it was removed. The apparent defect was 7cm x 7cm, but the real defect was 5cm x 5cm. This result 5cm x 5cm facial defect was closed with split-thickness skin graft harvested from medial aspect of the thigh. The weight of tumor mass removed was 2.85 kg. On cut section, it was a solid bosselated tumor with cystic, degenerated, loculated spaces (Fig. 5).

Great care was taken to identify and preserve the facial nerve main trunk and its branches during the surgery. Post-operatively there was normal eye closure, but slight deviation of the angle of mouth was present (Fig. 6). However, there was no drooling of saliva, or food during mastication. The facial weakness improved in a week, thus suggesting neuropraxia of the mandibular and cervical branches of facial

Fig. 5 Cut section of the tumor specimen.

nerve. Injection cefotaxime 1gm was given intra-operatively and post-operatively (tid) for seven days along with Injection Metrogyl. The graft take up was almost 100%. The histopathological report of the excision biopsy specimen was pleomorphic adenoma, with cystic degeneration. The margins of the specimen were reported free of disease. Follow-up of the patient is being kept since five months and there is no recurrence.

Fig. 6 Post operative photograph showing neuropraxia of mandibular and cervical branches of facial nerve.

Discussion

During reconstruction of the facial defect, various reconstructive techniques including random and definitive flaps were thought of, but in the given circumstance where in primary closure was not possible, the selection of split-thickness graft was justified because-

- a) Patient was an old man, and we wanted the procedure to be short, and less time consuming to prevent prolonged anaesthesia.
- b) The real defect was too small (5cm x 5cm) to warrant use of flaps for reconstruction.
- c) The post operative morbidity with split-thickness skin graft is lesser, as compared to flaps, as it is a comparatively short, single stage surgery, and no second stage surgery is required, to detach flaps, if a flap

surgery was done primarily.

- d) The patient wanted to go to village for some monetary settlement, and was unwilling for a longer stay in hospital, hence we preferred split-thickness skin graft to minimise his post operative hospital stay.
- e) Last, but not the least, an adequate post operative patient satisfaction was achieved with split-thickness skin graft technique.

It is the largest and heaviest parotid tumor removed, since the last twenty five years of our experience, in different hospitals in Mumbai. Because of the unusually massive head-neck tumor presentation, the case report is documented. We expect a fairly good prognosis, as the tumor excision margins were free of disease, and the patient has an accepted cosmetic result.

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