Abstract: 52 year old lady presented with complaints of painless swelling in right cheek for past 6 months. She was operated for the swelling 1 year ago by Caldwell luc approach and HPE revealed a granuloma. Patient presented in ENT OPD with similar presentation after 6 months. There was no history of numbness over face, nasal obstruction, nasal discharge, epistaxis, anosmia. CT scan showed a soft tissue mass in right cheek with no bony erosion or lymph node involvement. The tumour was removed by lateral rhinotomy approach. Biopsy revealed a foreign body granulomatous lesion. She is symptom free currently and on regular follow up.

Keyword: Cheek swelling, granuloma, recurrent cheek mass

Introduction

Soft tissue mass are quite common and have a varied histology. Around 10% of soft tissue tumours occur in head and neck region. Most common soft tissue tumour is lipoma. Granulomas are very rare <1% of all soft tissue tumours. Other tumours presenting with mass in cheek region are lipoma, naso-labial cyst, reparative giant cell granuloma, osteoma, giant cell tumours of maxilla, fibrous dysplasia of maxilla, osteosarcoma of maxilla, maxillary sinus carcinoma.

Case report

52 years old housewife presented with complaints of painless swelling over right cheek for 6 months. She had no history of numbness over face, nasal obstruction, nasal discharge, epistaxis, anosmia. There was no history of trauma. Patient did not have DM, TB or other major systemic illnesses. She was operated for the tumour over the cheek one year ago. Previous surgical details - This patient was operated by Caldwell luc approach. An incision was made 3mm above and parallel to the right gingivolabial fold and mucoperiosteal flap elevated to reach the tumor overlying the anterior wall of maxillary sinus. Tumor was dissected from surrounding tissue and removed. She had history of fibroadenoma excision 5 years ago. On inspection there was a single ovoid swelling of size 7x8 cm over right cheek (figure 1) extending superiorly till infra-orbital rim, inferiorly till canine fossa, laterally till zygomatic prominence, medially till ala of nose. Skin over swelling was hyperpigmented.

On palpation, the swelling was not warm, not tender, firm in consistency, having a smooth surface with well defined margins, not fixed to skin or underlying structures. Examination of oral cavity was normal except for induration in right upper part of gingivobuccal sulcus. There was no significant lymph node enlargement. The nose, nasal cavity, nasopharynx and oral cavity were found to be normal. examination of ear and throat was also normal. CT PNS (figure 2) showed a soft tissue density lesion seen in Right cheek. There was no bony erosion/ lymph node involvement. The patient was operated via lateral rhinotomy approach after getting consent for post operative scar.

Skin incision was made and tumour was meticulously dissected out from adjoining structures (figure 3). Mass was excised completely. The operative site is seen free of tumour (figure 4). The macroscopic appearance (figure 5) showed a firm pinkish globular mass that was sent for histopathological examination.
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Wound was closed. Post-operative period was uneventful and patient was discharged on day 7. Histopathological examination (figure 6) showed a granulomatous lesion composed of fibrocollagenous tissue with multiple multiple granulomata with histiocytes, lymphocytes, plasma cells, eosinophils, and multinucleated giant cells in a background of fibrous stroma with congested blood vessels.

Patient is on follow up. CT scan (figure 7) was taken 4 months after discharge. There was no evidence of tumour.

Discussion
Granuloma of cheek region1 is rare. Other tumours presenting with mass in cheek region are lipoma, nasolabial cyst, reparative giant cell granuloma, osteoma, giant cell tumours of maxilla fibrous dysplasia of maxilla, osteosarcoma of maxilla. maxillary sinus carcinoma. Lipomas4 of cheek are rare. Lipoma is painless, soft smooth submucosal mass. MRI and biopsy are most useful to differentiate from other tumours. HPE shows fibrovascular septae and encapsulation. The nasolabial or nasoalveolar cyst 5,6 is a rare extra-osseous lesion normally appearing beneath the ala of the nose on the maxillary alveolar process. Treatment consists of local surgical excision and it is important to distinguish this lesion from a minor salivary gland tumour.Reparative giant cell granuloma is not a true tumour 2,7,8. It presents commonly in 2nd and 3rd decade. Reactive growth is triggered by trauma or infection. There is no associated paraesthesia. The HPE shows a lobulated mass of proliferative vascular connective tissue packed with giant cells. Osteoma8 presents with pain and swelling of jaw. There is an expansion of bony cortex. CT scan shows a radiopaque to radiolucent swelling depending on presence or absence of perilosal sclerotic borders. Giant cell tumours of maxilla3, fibrous dysplasia of maxilla11,12, osteosarcoma10 of maxilla can also present with painless diffuse swelling in cheek region associated with facial asymmetry. These are fixed to underlying bone and can be differentiated by CT imaging and biopsy. Maxillary sinus carcinoma can present with swelling in late stage. There is associated purulent blood stained nasal discharge, epistaxis, unilateral nasal obstruction Granulomas usually present with multiple nodular lesions in various parts of the body. Some granulomatous diseases of head and neck occur only in mucosa and may present with pan-sinusitis and ulceration of the nasal floor and septal ulcerations.

Conclusion
This case is presented for the rarity of the soft tissue granuloma and its unusual location. Around 10% of soft tissue tumours occur in head and neck region. Most common soft tissue tumour is lipoma. Granulomas are very rare <1 % of all soft tissue tumours. It has also been presented to discuss the other tumors that can present with mass in the cheek. It is also presented to describe the successful management of the recurrent benign tumor by external approach Pre op evaluation and investigation is very important to find out the location of the tumor. FNAC/ excision biopsy is important to plan the treatment. This tumour was a granulomatous lesion in the right cheek region with no conclusive evidence of tuberculosis, or trauma. As there was recurrance, we planned for external approach to give complete clearance of tumour. The exact origin of tissue could not be pinpointed. It could have originated from soft tissue of the canine fossa. The patient has been on follow up for past 6 months and there has been no evidence of tumour.

References
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