

A Rare Case of Fibrosarcoma of Tongue

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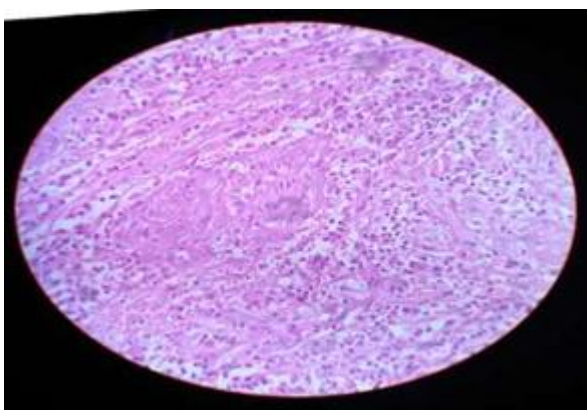
1. Introduction

- Fibrosarcoma accounts for 3% of all Squamous cell carcinomas in the head and neck region first described by Virchow in 1865.
- Fibrosarcoma, a rare aggressive variant of squamous cell carcinoma is characterised by proliferation of epithelial and mesenchymal components.
- It may be due to Cigarette smoking, Alcohol abuse, Trauma and previous Radiation exposure to the affected area.
- Fibrosarcoma occurs commonly in 6-7th decade of life with strong male predominance.
- Presence of this tumor type in the tongue has rarely been reported.

2. Case Report

- 45 year old man presented to the General Surgery Out patient department with a polyp like growth over the right lateral border of the tongue since 1 month.
- Swelling had gradually grown in size following repeated trauma while chewing; associated with pain since 2 weeks.

- Patient gave history of chewing Tobacco for 5 years. He did not have other co-morbidities.
- On examination, irregular shaped ulceroproliferative growth of size 4x2cm was present in the right lateral border of tongue. It was firm in consistency.
- There were no palpable lymph nodes in the neck (group Ia, Ib, II)
- Following routine investigations patient underwent Excision and Biopsy.
- Based on HPE and IHC (Vimentin +ve), growth was reported to be a low grade Fibrosarcoma with positive margins.
- Patient underwent Revision surgery – Wide Local Excision / Glossectomy and Level I-III lymph node dissection.
- Margins and lymph nodes were free of tumor.
- Post-operative period was uneventful and patient undertook Radiotherapy.
- PET-CT was done post-RT which showed no obvious enhancing CT demonstrable lesion and no abnormal increased metabolic activity in the post-operative site.



High power view showing tumor cells characterized as spindle shaped, plump and endotheloid

3. Discussion

- Ewing (1940) described Fibrosarcoma, spindle cell sarcoma or fascial sarcoma under the term neurogenic sarcoma.
- Repeated trauma was considered as one of the factor because the predominant cells seen within the lesion tissue are fibroblasts.
- The most common location is lower extremities (45%) followed by upper extremities (28%), trunk (17%) and head neck region (10%).
- Grossly, tumor can be misdiagnosed as benign neoplasm as most of them are well encapsulated and circumscribed.
- Histopathologically, Fibrosarcoma has been classified as:
 - a) Adult Fibrosarcoma (variants such as classic type, mixoid type, fibromixoid type, sclerosing epitheloid

type),

b) Juvenile / Infantile fibrosarcoma.

- Virtually all Fibrosarcoma stains positive for vimentin.
- These tumor cells are strongly negative for cytokeratins, neural markers (like S100 and neuron specific enolase), Desmin, SMA, CD68, CD 34.
- The treatment of choice for Fibrosarcoma is surgical excision with wide margin
- Fibrosarcoma may show recurrence after excision and spreads by both local invasion and hematogenous dissemination.
- The common sites of metastases are lungs and bones and rarely lymph nodes.
- In our case, the patient underwent surgical excision of tumor with wide margin and he is under continuous follow up with no recurrence has been reported so far

4. Conclusion

- Tongue is a rare site for Fibrosarcoma.
- Immunohistochemistry is mandatory if there is a minute suspicion of epithelial component in the presence of malignant spindle cells on HistoPathological examination.
- Prognosis of the tumor is dependent on histological grade, tumor size and adequate surgical treatment with disease free margins.
- The 5-year survival rate for this disease is poor, ranging from 20 to 35%.
- Early detection of this tumor may help reduce morbidity.