

# A Rare Case Of Benign Fibrous Histiocytoma Of Sub Epidermal Soft Tissue Of Cheek (Buccal Mucosa)

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## Abstract

Benign fibrous histiocytoma is a benign tumour commonly seen in skin of the extremities, where it usually presents as a small, firm nodule. Oral and perioral regions are uncommon areas for this tumour. Here we present a case of 51 year old female with benign fibrous histiocytoma involving the buccal mucosa and vestibule of oral cavity.

## INTRODUCTION

Benign fibrous histiocytoma is a mesenchymal tumor composed of fibroblasts and histiocytes arising in the cutaneous and non cutaneous soft tissue<sup>1</sup>. This tumor most frequently occurs in the dermis, but sporadically found in soft tissue and parenchymal organs<sup>2</sup>. This condition also known by various names such as dermatofibroma, sclerosing hemangioma, xanthogranuloma, fibro xanthoma and nodular sub epidermal fibrosis<sup>3,4</sup>. This article describes a case of benign fibrous histiocytoma of the sub epidermal soft tissue of cheek (buccal mucosa) and discusses its clinical and pathological characteristics and management.

## CASE REPORT

A 59 year old female from a rural area presented to our Otorhinolaryngology outpatient department with asymptomatic, slowly growing mass on right cheek that had been present for approximately twenty years.

Examination revealed a well-circumscribed, large mobile, non tender firm to hard consistent swelling measuring approximately 8 cm x 6cm (Figure 1). On examining of the oral cavity the tumour was involving buccal mucosa and mucosal surface on right side appeared smooth (Figure 2).

## Figure 1

Figure 1: swelling arising from right cheek



**Figure 2**

Figure 2: intraoral view showing bulge in right buccal mucosa



Blood counts, erythrocyte sedimentation rate, blood urea and creatinine, random blood sugar, E.C.G, were all within normal limits. CT scan with intravenous contrast revealed a soft tissue mass of 7 x 5.5 cm (Figure 3). The mass had well-defined borders, not infiltrating the surrounding tissues radiologist gave diagnosis as query benign vascular tumour, soft tissues tumour.

**Figure 3**

Figure 3: CT picture showing tumour in right cheek



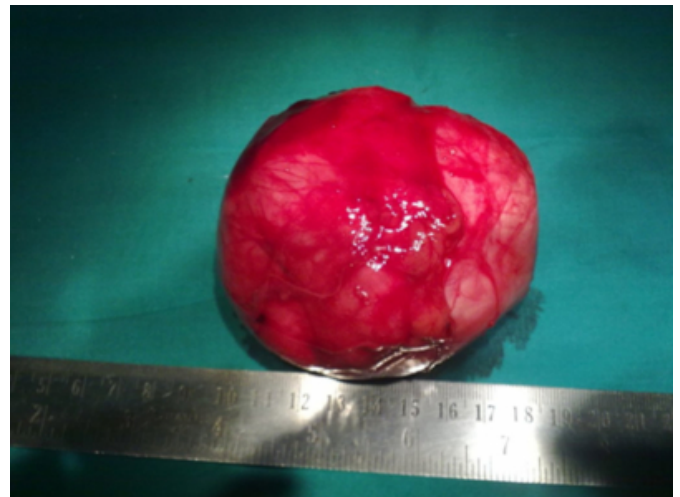
The patient was planned for excision under general anesthesia. After intubation, the patient was placed in anti trendelenberg position. Vertical incision about 5-6cm was made over the prominent part of the tumour. It was found to be well encapsulated, was dissected from the surrounding tissues and excised. Buccal surface was closed using vicryl 3-0 suture. Corrugated drain was the kept inside and skin

incision was closed in 2 layers. Pressure bandage was done. The specimen was sent for histopathological examination. Post operative period was uneventful. The patient was discharged after four days. On following up the patient, there was no recurrence even after 14 months.

Pathological analysis of the specimen revealed a macroscopically smooth, well-circumscribed encapsulated lesion of 8-7 cm in greatest dimension. The mass was grossly round in appearance (Figure 4). Microscopically the tumour was composed of spindle shaped cells with focally storiform arrangement. Plump, polygonal histiocytic cells were found interspersed among the spindle cells. There were no mitotic figures, cellular pleomorphism, multinuclear giant cells, nuclear atypia or necrosis. The stroma was collagenised and demonstrated a rich vascularity (Figure 5).

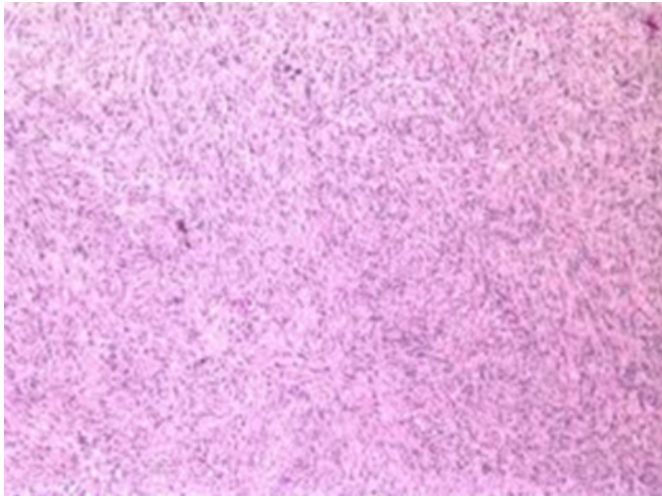
**Figure 4**

Figure 4: Excised tumour which is well encapsulated



**Figure 5**

Figure 5: Photomicrograph showing spindle shaped cells arranged in storiform pattern. (H&E X 100).



**DISCUSSION**

Fibrous histiocytoma is a benign tumour originating from histiocytes<sup>1</sup>. Based on the location of this tumour, fibrous histiocytoma are usually divided into cutaneous types and those involving deep tissues. These lesions most often arise on the skin, but may rarely occur in soft tissue<sup>2</sup>. It is more common in males and its peak incidence is in the fifth decade<sup>3</sup>. It usually originates in sun-exposed skin and in orbital tissues<sup>5,6</sup>, and most frequently occurs in the soft tissues in the lower extremities (50%), less frequently in the upper extremities (20%), retro peritoneum (20%)<sup>5</sup>. whereas the occurrence of this lesion in deep soft tissues of the head and neck has rarely been reported. This tumour in the head and neck region usually develops as a painless mass with specific symptoms caused by interference with the normal anatomy and physiology of the area in which they are found<sup>7</sup>.

During the past, researchers had to undergo lots of difficulties in their efforts made for the constitution of a regular classification system of fibrous histiocytomas due to the limited data concerning their pathogenesis and the differentiation between BFH and MFH<sup>8,9</sup>. Until 1960, a lot of pathological lesions had been described under the general term “fibrous histiocytoma”, with MFH not being a distinguished pathological entity<sup>8,9</sup>. The benign fibrous histiocytoma is also a controversial diagnosis because of its

uncertain histogenesis<sup>1,5,10</sup>

Due to the lack of specific markers for fibrohistiocytic lesions, the diagnosis of BFH is generally based on the absence of markers for cells of other lineages<sup>5</sup>.

Macroscopically the tumor is polypoid or nodular and light brown to yellow and variable in size. Histologically, it is a submucosal tumor, consisting of fibroblasts and histiocytes in rotating or fasciculated bundles, inflammatory cells, multinucleated giant cells and foam cells. There are collagen deposits in stroma with hyaline and myxoid areas. Frequent mitoses and especially atypical ones are signs of malignancy. Nodular fasciitis, benign peripheral nerve sheath tumors (neurofibroma, schwannoma), leiomyoma, dermatofibrosarcoma, malignant histiocytoma must be included in differential diagnosis.

The treatment of choice is the complete resection of tumour, with an excellent prognosis and recurrence rate of which is almost zero. In our case on follow up after fourteen months patient is disease free.

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