

## A Clinical Dilemma in the Diagnosis of Dermatofibroma - A Case Report

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### ABSTRACT:

Dermatofibroma is a button like nodule commonly found at lower extremities. It is common benign tumor of mesenchymal origin composed with fibroblast and histiocytes. In this case a 22 years old male patient came to *Shalya Tantra* OPD with a complaint of a painless cystic swelling at the right subscapular region. On the basis of clinical findings initially case was diagnosed as a sebaceous cyst. So it was excised under local anesthesia (Lignocaine hydrochloride 2%). The content of cyst was creamish color tissue of firm consistency which was different than sebum. So the excised tissue was sent for histopathology and the wound was sutured. The histopathology report showed Spindle cell neoplasm: benign fibrous histiocytoma. It was diagnosed as benign fibrous histiocytoma.

**KEYWORDS:** Dermatofibroma, Granthi, Sebaceous cyst.

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### Quick Response Code



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### INTRODUCTION:

The dermatofibroma is one of the most common mesenchymal tumors, it is believed that originates in histiocytes and fibroblast, but different findings of the lesion microscopically has led to the use of numerous alternative terms for it, including, benign fibrous histiocytoma (BFH), sclerosing hemangioma, xanthogranuloma, fibroxanthoma, and nodular subepidermal fibrosis.<sup>[1]</sup> This occurs usually in extremities,

most commonly in adult, more in female as compare to male.<sup>[2][3]</sup> It presents a 3 to 10 mm diameter nodule.<sup>[4]</sup> It is often as a painless nodule with unspecific symptoms.<sup>[5]</sup> The diagnosis is often a difficult and can be confused with blue nevus, pilar cyst, metastatic carcinoma, Kaposi sarcoma, dermatofibrosarcoma protuberans. Extensive research, including clinical history, physical examination, laboratory tests and imaging studies are essential to establish the

diagnosis and treatment. In this study, a case of dermatofibroma, where it was misdiagnosed as chronic sebaceous cyst on the basis of local part ultrasonography. This case demonstrates importance of clinical examination over radiological findings.

#### **CASE HISTORY:**

A case of 22-year male patient had a complaint of painless cystic swelling at right subscapular region in the past 2 years with mild discomfort.

**On examination:** On Inspection localized swelling with blackish pigmentation seen at subscapular region with size 1\*1 cm,(Fig-1). On palpation non tender cystic nodule palpated. Dimple sign was positive.

#### **Investigations:**

All hematological and biochemical reports were within normal limit and serology report was negative.

**USG (local part)** showed 12x8 mm sized cystic swelling with echogenic content seen inside impression of chronic sebaceous cyst (Fig-2).



Figure- 1: pre operative picture

#### **THERAPEUTIC INTERVENTION:**

This case was planned for excision of sebaceous cyst under local anesthesia lignocaine hydrochloride 2% with primary intention of healing. Oral antibiotics and analgesic were given for 3 days.

**Procedure of excision:** Under all aseptic precaution's patient was taken to minor OT. Painting was done with betadine solution 10 % then draping was done with sterile cut sheet. The linear incision was taken on skin with blade no. 15 followed by subcutaneous tissue. During operation we found creamish colored fragile tissue and there was absence of cyst tissue sample was taken and sent for biopsy. Wound was closed with Ethilon 3-0 after confirmation of healthy tissue at the floor.

#### **OUTCOME AND FOLLOW UP:**

**Actual outcome-** The content was creamish color tissue of firm consistency was excised and sent for histopathology and wound was sutured. [Fig.3] It was diagnosed as benign fibrous histiocytoma (Dermatofibroma) (Fig-4).



Figure- 3: Post operative picture

**Institute of Teaching And Research in Ayurveda, Jamnagar**  
**X-Ray / Sonography Requisition Form**

To, The Sonologist / The Radiologist,  
 I. T. R. A. Hospital,  
 Sir,  
 X-Ray Requisition Date: 25.10.21  
 OPD / IPD Regd. No. 5940 Dt. 21.10.21

Please arrange for the following examination of the patient as per details given below:-  
 Name: \_\_\_\_\_ Age: 23  
 Sex: Male / Female X-Ray / Sonography Local part (right scapula)  
 Short History: sebaceous cyst (right scapula)  
 Physician: Dr. V. A. ... Dept. ... Sign: ...  
 Type of requisition:  Thesis  Paid  Staff  BPL  Sr. Citizen  Others

**REPORT**

Local

12 x 8 mm. sized cystic swelling  
 Eclogenic content seen inside  
 Ch. sebaceous cyst.

Thanks for referring Hon. Radiologist

Figure -2: USG Report Local Part

**Neuberg Supratech**  
 REFERENCE LABORATORIES

**LABORATORY REPORT**

Name	Sex/Age : Male/ 22 Years	H.ID :	Case ID : 30508800396
Ref By	Dis.Loc. :		Pt ID : 2712894
Registration Date & Time : 03-May-2023 13:28	Sample Type : Biopsy		Ph.# : 8140973317
Sample Date & Time : 03-May-2023 13:28	Sample Coll. By :		Ref Id :
Report Date & Time : 10-May-2023 12:59	Acc. Remarks :		Ref Id2 :

**Histopathology Report**

**Specimen :**  
 Tissue from Right subscapular region for histopathological examination.

**Clinical Data :**  
 ? Sebaceous cyst

**Macroscopic Examination :**  
 Specimen consist of two tissue bits, creamish in color, firm in consistency measuring 1.1 x 0.6 cm in aggregates

1053 /A/23  
 1053/B/23

All embedded

**Microscopic Examination :**  
 Studied sections shows proliferation of spindle cells having thin elongated nuclei with pointed ends & eosinophilic cytoplasm. There is presence of histiocytic cells having round nucleus & pale eosinophilic cytoplasm. At places hemangiopericytoma like vascular pattern & storiform pattern seen. There is no area of necrosis or mitosis in studied sections.

**Impression :**  
**Spindle cell neoplasm - Benign Fibrous histiocytoma more likely, Biopsy from right subscapular region**

Grossing By :  
 # For test performed on specimens received or collected from non-NSRL locations, it is presumed that the specimen belongs to the patient named or identified as labeled on the container/test request and such verification has been carried out at the point generation of the said specimen by the sender. NSRL will be responsible Only for the analytical part of test carried out. All other responsibility will be of referring Laboratory.

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Dr Mona Der  
 M.D Pathology Printed On : 10-May-2023 13:02

Figure- 2: Histopathology Report of Specimen Collected From Swelling

**DISCUSSION:**

Dermatofibromas are benign lesions with excellent prognosis. Skin that is hypopigmented may arise from lesions that spontaneously regress. For years, the majority of dermatofibromas remain unchanged. These lesions seldom come back after complete excision; only the most aggressive types cause local recurrence in about 20% of cases. These lesions don't usually spread.<sup>[6]</sup> It can be diagnosed clinically but it can be confused with various skin and subcutaneous pathology. It should be in practice to go for biopsy for confusing pathology. This case demonstrates that clinical examination is much more important than depending upon imaging reports. Thorough clinical examination can help to diagnose disease where imaging reports can mislead if the clinical examination is not done properly.

**CONCLUSION:**

This case concluded that Radiological Diagnostic tools are just supportive tool which can be helpful after clinical examination as supportive documents. One can not only rely on radiological findings, better to do clinical examinations and correlate that findings with radiological findings.

**Patient's Consent:**

Consent was taken from the patient before starting the treatment protocol as well as prior to publication of the case details and pictures.

**Patients' Perspective:**

Patient was happy with the treatment as well as follow-up was done upto 6 months.

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**Conflict of interest:** Author declares that there is no conflict of interest.

**Guarantor:** Corresponding author is guarantor of this article and its contents.

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