A Rare Recurrent Soft Tissue Swelling Over Dorsum of Left Foot in A Child: A Case Report

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ABSTRACT

Introduction: Soft tissue swellings over dorsum of foot are not very common. Even if a swelling is found, it is more often benign in origin and rarely malignant. Benign swellings may originate from the subcutaneous fat, tendon sheets, nerve sheets, vessels, bone, etc. other swellings often found may be due to foreign body implantation commonly by trauma over dorsum of foot. Though benign tumors, appears to be common condition, malignancy should be ruled out with proper histopathological examination both preoperatively and postoperatively.

Case Report: Discussed about 11year old male child who had recurrent soft tissue swelling over the dorsum of left foot. Patient had multiple surgeries previously for the same problem. As swelling was painless and was not fixed to underlying structures, it was thought to be benign. The lesion was excised and skin grafting was performed. Excised swelling was sent to histopathological examination which was surprising to be malignant. Child also had born with other congenital anomalies like cleft lip and palate.

Conclusion: Case which presented as benign swelling over dorsum of foot especially in a child without any history of trauma, and with associated congenital anomalies, where the lesion which was thought to be benign turned out to be locally invasive juvenile sarcoma. Also exact etiology for the sarcoma remains unknown.

Keywords: Child, rare recurrent soft tissue swelling.

INTRODUCTION

Soft tissue swelling are often seen over dorsum of foot and ankle. Soft tissue swellings most commonly tend to be lipoma[1], which is a benign swelling. Patients suffering with peripheral neurofibromatosis[2] may also show swelling over dorsum of foot. Uncommonly other swellings like haemangioma[3], adventitious bursa[4] and swelling originating from synovium like synovial osteochondromatosis[5] which are also benign.

Some of the syndromes like Maffucci syndrome[6] the patient suffers with multiple enchondroma with multiple hemangiomas affecting the lower limbs and upper limbs distally most commonly at metacarpal bones and phalanges of hands. Sarcomatoid changes of enchondromas, hemangiomas, lymphangioma may also occur. Epitheloid scarcoma[6] is rarely occurring sarcoma mainly affecting the extremities involving hands and foot more commonly. Epitheloid sarcoma generally presents itself with soft tissue swelling with necrotic core and recurrent after excision.

CASE REPORT

A male child of 11years of age presented at department of plastic and reconstructive surgery, Osmania General Hospital, Hyderabad with the recurrent soft tissue swelling over the dorsum of the left foot at the region of 4th metacarpo-phalengeal joint (Figure-1).

History of present complaint

Child developed a pea sized swelling on the dorsum of left foot at the 4th metacarpo-phalengeal joint region but did not involve joint. It started increasing in size gradually. Patient was operated 5 times for the same before coming to Osmania general hospital for the 6th surgery.

Previous operations

- At the age of 5years operated at a private hospital. But the swelling appeared back in one month and was again operated at the same place.
- Patient was operated again at the age of 6 years and 9 years for the same problem at other private hospital.
- At the age of 11 years he was operated again for recurrence at private hospital but swelling had rapid growth in span of 30 days for which patient came to Osmania hospital, department of plastic surgery.

Other history

Father and mother of the child had consanguineous marriage. They have two daughters elder to this 3rd male child. Daughters are normal but this male child was born with the cleft lip and palate. He did not have any complaint of swelling over dorsum of foot till the age of 4 years when the parents noticed a small swelling on dorsum of left foot.

Mangement of swelling

This patient was worked up with routine screening for HIV, HBsAg, complete blood picture, blood urea, serum creatinine, electrolytes which were in normal range. The doppler ultrasound of the left foot was done at our hospital suggestive of soft tissue neoplastic swelling.

Surgery

The lesion was excised completely with 5mm normal margin (Figure-2). The lesion was of 3x2cm with extension on to the base of the 5th toe and also 3rd toe but mainly being at the base of the 4th toe (Figure-1). After excising the tumor, split thickness skin graft of 4x5cm was harvested from the right thigh medical aspect, and after pie crusting, the graft was placed on the raw area (Figure-3) and bolster dressing was done.

The specimen that was excised was sent to histopathological

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How to cite this article: N. Nagaprasad, Vishwanath Varun. A rare recurrent soft tissue swelling over dorsum of left foot in a child: a case report. International Journal of Contemporary Medical Research 2016;3(11):3187-3188.


Figure-1: preoperative picture, **Figure-2:** Raw area with excised swelling legend


Figure-3: Intra operative photo after excising the lesion and placing the skin graft; **Figure-4:** Post operatively after 8days of surgery

examination. After a week histopathological report stated it to be Juvenile Sarcoma, high grade, with local spread. Patient reviewed eight days after the surgery where the graft uptake was good and no discharge from the wound (Figure-4).

As per the histopathological report suggestive of juvenile sarcoma, patient was sent to cancer hospital (MNJ Cancer Hospital) for further management.

DISCUSSION

Swellings on the dorsum of foot in the paediatric age group can be congenital or benign in origin most commonly. When the case was reported to us, it was thought to be benign soft tissue swelling with a recurrence. Lipoma being most common, Maffucci Syndrome was thought to be the cause. Naik G et al[8], suggested a neural fibro lipoma, which is also a slow growing soft tissue swelling. Intramuscular Hemangioma of Flexor Digitorum Brevis Muscle by Mustafa Ozsahin, MD et al[9] described about a palpable painful mass in the medial plantar surface of her right foot in a 8 years old child which was later confirmed as intra muscular hemangioma after doing Magnetic resonance imaging. Intra muscular hemangioma was painful swelling where case presented to us was a painless swelling. TS Reed and JA Marty (1995)[10] found a case with isolated neurofibroma of foot. The case presented to us, the recurrent swelling appeared to grow slowly but at a consistent rate to attain significant size. The swelling did not have any of inflammatory signs and there was no tenderness on touch. Because it was operated earlier is some private hospital before coming to Osmania General Hospital, there was scar tissue which restricted its free mobility. The tumour tissue was removed by doing local excision with 5mm normal margin and was subsequently skin grafted. Histopathology stated it to be juvenile sarcoma (high grade), which ruled out the lipoma or other swellings like neurofibroma, haemangioma, synovium osteochondromatosis.

CONCLUSION

In this case where the lesion which was thought to be benign turned out to be locally invasive juvenile sarcoma. Also exact etiology for the sarcoma remains unknown.

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Source of Support: Nil; **Conflict of Interest:** None

Submitted: 01-09-2016; **Published online**: 15-11-2016