

INFANTILE FIBROSARCOMA- AN UNUSUAL PRESENTATION**ABSTRACT:**

Soft tissue tumors account for ~ 25% of all congenital tumors. Infantile fibrosarcoma is one of the most common nonrhabdomyosarcoma , a soft-tissue sarcomas under 1 year of age. Forty percent of infantile fibrosarcomas are observed in infants under 3 months, which include congenital fibrosarcomas that is discovered antenatally. The prognosis of this tumor is relatively good compared to adult forms. We report an unusual case of congenital fibrosarcoma occurring in the paravertebral region of the new born. Which was successfully resected. The infant is now 6 months old with no impaired motor development.

Keywords: Infantile fibrosarcoma, paravertebral region, surgery.

INTRODUCTION:

Fibrosarcomas are malignant tumors that predominantly arise in soft tissues. They are <1% of all childhood tumours and are characterized by a cellular proliferation reproducing fibroblasts¹. Surgery with wide resection is the mainstay of treatment. Although histologically similar to fibrosarcomas occurring in adults, the congenital lesions differ in their clinical behaviour. Metastases are rare < 10%, local recurrence is common, and the prognosis is good. Overall survival is given as high as 90% in different series.

CASE REPORT:

- A 23 years old , primigravida with 9 months of amenorrhea came for safe confinement of pregnancy. During her regular antenatal visit, ultrasound showed a solid mass in thoracolumbar region at 22wks.
- Fetal MRI was done at around 24 weeks which revealed a mass lesion in left posterior paravertebral region(2x2.5x3cm), is attached to muscle, subcutaneous plane and superficial surface of bony spine. Lesion showed solid and cystic component. There was a tiny communication of subarachnoid CSF into the mass and there was no spinal cord extension into the mass- Lipomeningocele . Patient was counselled for termination of pregnancy but patient opted for continuation.
- Growth scan were normal but tumor was fast growing and highly vascular hence was thought to be sarcoma. The prognosis for sarcoma was poor, hence planned for normal vaginal delivery.
- At 39 weeks patient went into spontaneous labour and was allowed for normal vaginal delivery. Delivered alive girl baby of birth weight-2.9kg, Apgar 7/10, 8/10.
- Baby was active, able to move all four limbs.
- Neonatal MRI showed: Fairly large mixed intense lesion in the left posterior paravertebral region mid dorsal region with no definite intraspinal extension – suggestive of neoplasm(?rhabdomyosarcoma). As the tumor was fast growing the tumor was immediately resected and sent for HPE which was turned out to be fibrosarcoma.
- Post operatively baby was active moving all four limbs and the milestones are normal till date.

DISCUSSION:

1. Fetal tumours have different prevalence, histological characteristics, anatomic location, and biological behaviours than their paediatric counterparts. The reported prevalence of all congenital tumours is 1.7- 13.5 per 100000 live births. Among all congenital tumours 25% are soft tissue tumours and are predominantly benign. However one third are malignant².
2. Infantile fibrosarcomas are rare tumours, with a male predominance, with an incidence of 5 cases per one million infants¹. It is common in extremities (71%), then comes the neck and trunk. The main cause of infantile fibrosarcoma still remains unknown, but some gene fusions and some trisomies have been reported¹¹. More recently, CIF has been found to have t (12;15) translocation leading to the gene fusion ETV6-NTRK3, which is not present in the other diseases. Trisomies of 8, 11, 17, and 20 have also been reported. CIF can mimic and must be differentiated from congenital hemangiopericytoma, infantile fibromatosis/myofibromatosis, malignant fibrous histiocytoma, rhabdomyosarcoma, malignant peripheral nerve sheath tumor, monophasic synovial sarcoma, and leiomyosarcoma clinically. Histopathology, immunohistochemical stains, radiological findings, and physical examination help us to differentiate CIF from other conditions mentioned above¹².
3. It presents as a rapidly growing mass at birth or shortly after. Its clinical course is more favorable with a rare metastatic spread. The local recurrence rate is high, up to 43%, and recurrence may occur as late as 15 to 31 years after the initial operation¹³.
4. Surgery still remain the main stay of treatment. In inoperable cases chemotherapy may be the treatment of choice.

CONCLUSION:

Though fibrosarcoma have poor prognosis, when diagnosed and treated earlier they have better prognosis and need multidisciplinary team including obstetricians, neurologist, anaesthetists, neonatologists, paediatric surgeon and geneticists for good obstetric and neonatal outcomes.

CONSENT :

All authors declare that 'written information consent was obtained from the mother for publication of this paper and accompanying images '.

COMPETING INTERESTS:

We do not have any commercial association that might pose a conflict of interest in connection with the manuscript.

ETHICAL APPROVAL:

All authors hereby declare that "Principles of laboratory animal care" (NIH publication No. 85-23, revised 1985) were followed, as well as specific national laws where applicable. All experiments have been examined and approved by the appropriate ethics committee.

All authors hereby declare that all experiments have been examined and approved by the appropriate ethics committee and have therefore been performed in accordance with the ethical standards laid down in the 1964 Declaration of Helsinki.

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Figure 1



Figure 2



Figure 3

