Journal of Neonatal Surgery
ISSN(Online): 2226-0439
Vol. 14, Issue 20s (2025)
https://www.jneonatalsurg.com

OPEN ACCESS

Case Of Multiple Infantile Hemangioma in An Infant

Dr Ganesh Kumar[1], Dr Vineeta Pande[2], Dr Darshana D S[3], Dr Shailaja Mane[4], Dr Md Owais Ali Khan[5], Dr. Srinija Garlpati[6]

[1]Dr D Y Patil Medical College, Hospital and Research Centre, Dr, D. Y. Patil Vidyapeeth, Deemed To Be University), Pune, Ind,

Email ID: Ganesh0019@Gmail.Com

[2]Professor, Dr D Y Patil Medical College, Hospital and Research Centre, Dr, D. Y. Patil Vidyapeeth, Deemed To Be University), Pune, Ind,

Email ID: Drvineetapande@Gmail.Com

[3*]Resident, Dr D Y Patil Medical College, Hospital and Research Centre, Dr, D. Y. Patil Vidyapeeth, Deemed To Be University), Pune, Ind,

Email ID: 333darshanads@Gmail.Com

[4]Professor, Dr D Y Patil Medical College, Hospital and Research Centre, Dr, D. Y. Patil Vidyapeeth, Deemed To Be University), Pune, Ind,

Email ID: Shailaja.Mane@Gmail.Com

[5]Resident, Dr D Y Patil Medical College, Hospital and Research Centre, Dr, D. Y. Patil Vidyapeeth, Deemed To Be University), Pune, Ind,

Email ID: Owaiskhan2477@Gmail.Com

[6]Resident, Dr D Y Patil Medical College, Hospital and Research Centre, Dr, D. Y. Patil Vidyapeeth, Deemed To Be University), Pune, Ind,

Email ID: Srinijagarlapati7@Gmail.Com

Cite this paper as: Dr Ganesh Kumar, Dr Vineeta Pande, Dr Darshana D S, Dr Shailaja Mane, Dr Md Owais Ali Khan, Dr. Srinija Garlpati, (2025) Case Of Multiple Infantile Hemangioma in An Infant. *Journal of Neonatal Surgery*, 14 (20s), 374-377.

ABSTRACT

Infantile hemangioma is a common benign vascular tumor that typically appears in infants shortly after birth. It affects 5% to 10% of all infants born. (1) These lesions can vary in size, shape, and location but normally follow a pattern of rapid growth followed by involution. While most infantile hemangiomas do not require treatment, early recognition and understanding the natural course of these lesions are important for appropriate management and guidance for affected infants and their families. This case report describes an infant who presented with infantile hemangiomas which were multiple in number. This case reports discusses the significance and course of such lesions, along with the need for guidance of the parents.

1. INTRODUCTION

Infantile hemangioma is a benign vascular tumor which is the most common soft tissue tumor in infants (2), characterized by the abnormal growth of blood vessels. These tumors are also known as juvenile hemangiomas, which typically appear shortly after birth. They are mostly noticed within the first few weeks to months of life. These lesions are generally not present at birth but proliferate rapidly in the ensuing weeks. Superficial hemangiomas are characterized by bright red vascular plaques or nodules. About 10%–15% cause serious problems, such as cutaneous expansion, ulceration, and necrosis, particularly in facial features (3). Large tumors can cause high-output cardiac failure and consumptive hypothyroidism. The exact cause is not completely understood, but they are believed to result from abnormal development of blood vessels in the skin. Studies suggests a multifactorial origin involving genetic predisposition and certain environmental factors, although specific triggers remain unclear. Treatment depends on type of hemangioma, stage, location and extent, number and distribution of the lesion, associated systemic involvement, presence or absence of ulceration. Most of them are uncomplicated and can be managed by active non-intervention alone.

CASE REPORT

A 2 month old first order male child born out of a non-consanguineous marriage presented in our hospital OPD with complaints of excessive crying, where on examination, the infant was found to have focal hemangiomas on multiple sites of the body, on systemic examination there was hepatomegaly and parents were advised USG abdomen. USG abdomen showed mild hepatomegaly with multiple cystic vascular lesions with suspicion of infantile hepatic hemangioma or hepatic mesenchymal hamartoma. The course of the lesions were when the 1st set of lesions appeared over on the face on day of life 4, on the lower lip and on the left cheek with no history of fever, diarrhea, feeding issues, no bleeding, discharge from the lesions. After 5 days of noticing the 1st lesion, the next lesion appeared on the left flank of the abdomen, with no complaints of discharge or bleeding associated with the same. Next lesion appeared on the right shoulder after 1 week, with 2 more lesions that were noticed on the scalp within few days. All the lesions occurred in a span of 1 month, with no increase in size since birth, no associated bleeding or discharge. The lesions decreased in size post 1 week of hospitalization. Child had no history of fever, loose stools, rashes, itching, difficulty in feeding. There was no significant antenatal history, and he was a term baby born via caesarean with a birth weight of 3.4KG who cried immediately after birth and had no immediate neonatal intensive care unit stay, but was admitted in NICU on day of life 4 for exaggerated physiological jaundice, attained milestones appropriate for the age, immunized till 1.5 months of age and is on exclusive breast feeding. Child was managed with injection Vitamin K for 3 days and was treated with anti-spasmodic medications for the complaints he had presented initially with. CECT abdomen, USG cranium and 2D ECHO was done. USG cranium and ECHO reports were found to have no abnormalities detected. CECT abdomen showed liver hemangiomas. Child was started on Propanolol and was later discharged.

2. DISCUSSION

Infantile hemangiomas are benign vascular neoplasms that have a characteristic clinical course marked by early proliferation and followed by spontaneous regression. There are cutaneous and extra cutaneous hemangiomas. The International Society for the Study of Vascular Anomalies (ISSVA), have classified vascular anomalies as vascular tumours and vascular malformations (4). Infantile hemangiomas fall under benign vascular tumors. The patterns of growth of infantile hemangioma are focal, multifocal, segmental and indeterminate, whereas the types are superficial, deep, mixed (superficial and deep), reticular, abortive, minimal growth and others. (4). Syndromic associations with infantile hemangiomas are PHACE syndrome and LUMBAR syndrome.

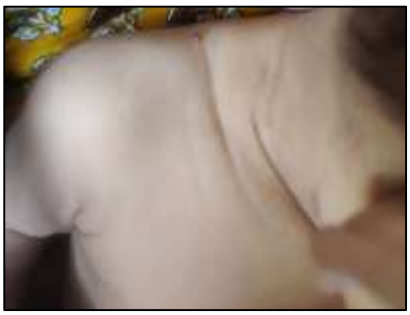
The lesions usually begin as blanching of the involved skin, followed by fine telangiectasias, and then a red or crimson macule or papule. There are 3 phases, 1st the rapid proliferation phase which has the fastest, then plateau phase, and the slow involution phase. The regression is completed by the age of 4 years in 90% of cases. (5) The pathogenesis is due to the result of dysregulated vasculogenesis where there is formation of new blood vessels from stem cells and angiogenesis is the formation of new blood vessels from existing vessels. Meta-analysis of studies have revealed that risk factors include female gender, low birth weight, preterm birth, progesterone therapy, and family history may affect the occurrence. (6).

Diagnosis is done by taking a thorough history and physical examination. Infantile hemangiomas uniformly stain positively for glucose transporter 1, GLUT-1, during both the proliferation and the involution phases. Radiological investigations like USG, MRI can detect lesions if present in liver and other parts of the body. Serum and urinary vascular endothelial growth factor (VEGF), Urinary beta-fibroblast growth factor, Urinary matrix metalloproteinases (MMPs) are tests that can be possible markers for infantile hemangioma. The majority of infantile hemangiomas do not require any medical or surgical intervention. For clinically significant hemangiomas medication, Laser surgery (Pulse dyed laser- PDL) and surgical excision can be done. Pharmacological treatments include Beta blockers like Propanolol, Timolol (topical therapy), corticosteroids like Prednisolone or high dose pulse therapy with Methyl Prednisolone. Infantile hemangiomas are benign vascular lesions which can be treated effectively if diagnosed early and thus further complications can be prevented.

3. CONCLUSION

Hemangiomas are the most commonest vascular tumours in childhood. Recognition of associated syndromes and impending complications of hemangiomas is of utmost importance. (6) Although it has a benign character, in may cause life-threatening complications. As pediatric physicians, such children should be immediately started on systemic Propanolol. These children should be also evaluated for other sites by the help of radiological investigations. This article emphasises on the need of the physician to be familiar with the basic morphology and course and complications for the proper guidance of the parents.

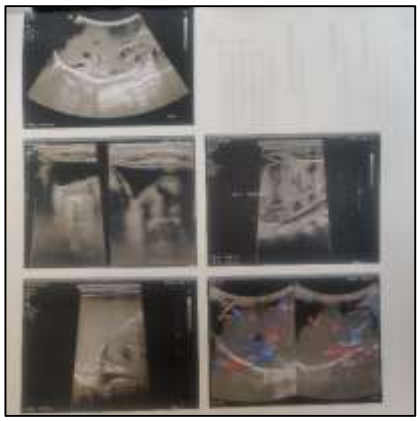
1. photograph of hemangioma over shoulder



2. Hemangioma over abdomen

3. Hemagioma over face

4. USG of liver showing hemangiomas



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