

<https://doi.org/10.33472/AFJBS.6.6.2024.6202-6205>



African Journal of Biological Sciences

Journal homepage: <http://www.afjbs.com>



Research Paper

Open Access

More Than What Meets the Eye?! A Case of Simple Infantile Hemangioma.

Madhu Manaswini¹, Shri Lakshmi², Ravanagomagan^{3*}

¹Junior Resident, Department of Paediatrics, Sree Balaji Medical College and Hospital

²Junior Resident, Department of Paediatrics, Sree Balaji Medical College and Hospital

^{3*}Associate Professor, Department of Paediatrics, Sree Balaji Medical College and Hospital

Corresponding Author: ^{3}Ravanagomagan

Chennai-600044

Article Info

Volume 6, Issue 6, June 2024

Received: 21 April 2024

Accepted: 31 May 2024

Published: 25 June 2024

doi: [10.33472/AFJBS.6.6.2024.6202-6205](https://doi.org/10.33472/AFJBS.6.6.2024.6202-6205)

ABSTRACT:

Infantile hemangiomas (IH) are benign, proliferative, vascular tumour involving the vascular endothelium. It is the most common tumour of infancy, present in 5 % of newborns. Prematurity, LBW, Female sex, white race are known risk factors. IHs more commonly present at first two weeks of life or at birth. Most IHs enlarges in size and spontaneously involute. Expectant observation and reassurance of the parents is recommended. Topical Timolol 0.5 % gel, Oral Propranolol and Oral and intralesional Corticosteroids, pulsed dye laser therapy, or surgical excision is the recommended treatment options available. Complications like ulceration, secondary Infection; permanent disfigurement can result from an Infantile Hemangioma.

Keywords: Infantile hemangioma, timolol, vascular, benign, involute.

© 2024 Madhu Manaswini, This is an open access article under the CC BY license (<https://creativecommons.org/licenses/by/4.0/>), which permits unrestricted use, distribution, and reproduction in any medium, provided you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons license, and indicate if changes were made

1. Introduction

endothelium. They usually occur at birth, are most common in the first two weeks of life, and then grow into larger ones and over time spontaneous engagement occurs in most cases. Pediatric hemangiomas are mainly composed of blood vessels that form abnormally and more frequently than they should. These blood vessels receive temporary signals to grow rapidly at the beginning of a child's life. Most of them will appear at birth or within the first few weeks after birth. Infantile hemangiomas show a mark or pigment on the skin of babies at birth or just

a few weeks after birth. It is the most common plant that affects children. It is more common in girls than boys and more common in Caucasian children.

Schedule Report:

A one-year-old child with complaints of red swelling on the inner wall of the chest in the right nipples that was present at birth, measuring about 0.5 * 0.5 CM later developed gradually to about 5 * 5 CM at some point in one year. O / E inflammation was protuberant and compressed, the genes are sharply separated. Surgeon and Dermatologist's opinion was obtained, USG performed and showed hyper-echoic and compressible lesions with high intra-tumoral intensity in vascular changes and the child was diagnosed with Simple Infantile Hemangioma. Since then, a one-year-old child whose parents have been reassured by spontaneous observation and impact.

2. Discussion:

Historically, non-vascular naming names have been clinically defined and inconsistent, leading to the confusion of the diagnosis. To clarify the term, a moderate name for vascular ulcers was suggested by Mulliken and Glowacki in 1982. Vascular abnormalities were classified as vascular tissue or vascular malformations based on biological factors including clinical behavior and histopathologic features [2]. the International Society of the Study of Vascular Anomalies, which was revived in 2014 and is now widely accepted. [3] [4] Hemangiomas in infants are the most common childhood tumor in 5% of newborns. Premature maturation, female sex, low birth weight and white race are the most dangerous factors in pediatric hemangiomas. Infant Hemangiomas are divided into three distinct, deep, mixed categories. The upper IH is bright red in color, protuberant, compressor and has sharp edges that usually touch the face, back, hair follicles and inner chest wall. It can present as a single ulcer or multiple sores. In the involution phase the delicate telangiectatic pattern is preceded by a pallor area or a blue mark or erythematous area. Deep IHs are widely distributed, less defined, cystic, solid or compressive. Excessive skin sometimes with a normal color or present with a bluish hue. Combined IHs have characteristics of both subtypes and basics. The pathogenesis of IH, without further research, is not fully elucidated. Evidence lines support the origin of cells from endothelial progenitor cells (EPCs) or angioblasts of placental origin, but internal and external factors are also thought to contribute to their development [5]

The course of IHs is as follows. Rapid enlargement of inflammation, followed by permanent, and spontaneous involvement is expected and awaited when developing a central gray area of inflammation.

Stress includes but is not limited to ulcerative colitis, secondary infections, permanent disability, and limitations of essential activities depending on the areas involved. In the post-remission phase telangiectasia, hypo-pigmentation, fibrofatty deposit, and or scars may be present. Treatment options include expected and guaranteed views. Topical Timolol 0.5% Gel with a high dose of 0.5mg / day is considered a safe alternative to the expected and careful management in the treatment of inactive IHs. However the first line of treatment is Oral beta blocker Propranolol 1 - 3 mg / kg / day, which will be started at a dose of 1mg / kg / day in 3 divided doses. Propranolol helps with the binding of growth. Side effects of propranolol include hypoglycaemia, bradycardia, hypotension, GERD, hyperkalemia, asthma or bronchospasm. The second line of treatment includes Oral Corticosteroids; The answer appears within two to four weeks. Internal steroids can help treat IHs.

Treatment of infants with hemangioma of infants with imiquimod up to seven times a week for 16 weeks was generally well tolerated with low systemic exposure. Improvements were seen

in the color of the hemangioma, but not in the size of the wound, suggesting that the effects are limited to a higher [3]

Depending on the size and location of the IH, surgical removal may be considered. Surgery during the growing phase may be severe for severe blood loss and risks leaving IH residues that may continue to grow after surgery [6]

3. Conclusion:

Most developmental hemangioma of infants occurs before five months, but only five months and was the age at the first visit of a specialist. Recognition of growth symptoms and predictors may help clinical decision-making. The first few weeks to the first months of life are critical periods for hemangioma development. Infants with hemangiomas need close supervision during this time, and those in need of special care should be referred and seen as soon as possible during this critical developmental period.

Over the past decade the management of IHs has changed dramatically. Accidental detection of the IH response in systemic β -blockers has increased the treatment options for these tissues. Timolol, an ical-blockical blocker, shows promising results for more ulcers. Better understanding of in

IMAGE:



Fig: showing hemangioma of the right nipple and surrounding areola

Conflicts of Interest:

There is no conflict of interest regarding the publication of this paper. There was no financial or material interest brought in here and they did not have sponsors to study

4. References:

1. Nelson textbook of Paediatrics 20th edition Chapter 650 Page No 3124

2. Doege C, Pritsch M, Frühwald MC, Bauer J. An association between infantile haemangiomas and erythropoietin treatment in preterm infants. *Arch Dis Child Fetal Neonatal Ed.* 2012;**97**(1):F45–F49pmid:21546402
3. Finn MC, Glowacki J, Mulliken JB. Congenital vascular lesions: Clinical application of a new classification. *J Pediatr Surg* 1983;18:894-900
4. Dasgupta R, Fishman SJ. ISSVA classification. *Semin Pediatr Surg* 2014;23:158-61
5. ISSVA Classification of Vascular Anomalies. International Society for the Study of Vascular Anomalies; 2014. Available from: <http://www.issva.org/classification>
6. McCuaig CC, Dubois J, Powell J, Belleville C, David M, Rousseau É, Gendron R, Jafarian F, Auger I. A phase II, open- label study of the efficacy and safety of imiquimod in the treatment of superficial and mixed infantile hemangioma. *Pediatric dermatology.* 2009 Mar;26(2):203-12.
7. Hochman M. The role of surgery in the management of infantile hemangiomas: What is the best timing? *Otolaryngol Clin North Am* 2018;51:119-23.