

Management of haemangioma neck using sclerosing agent- a case report

S. Bhadoria¹, R. Saxena², A. Lavania³

¹ Senior Resident, ² Professor, ³ Associate Professor

Dept. E.N.T and Head & Neck Surgery, School of Medical Science & Research, Greater Noida, Uttarpradesh, India

Abstract

Although hemangiomas are common in infancy and childhood, they are probably developmental abnormalities rather than true neoplasms. In present case we have treated a child aged 10 years with haemangioma of the right side of the Neck. After thorough investigation we posted this for intralesional infiltration of Sclerosing agent (Inj. Polidocanol 3%) in 1:3 dilution with normal saline. Approximately 2 ml Inj. Polidocanol diluted with saline was injected into the lesion. And the same procedure was repeated in three sittings after one week interval. The size and vascularity was reduced dramatically after single procedure. Patient was followed up after one and two months interval. There was no sign of any recurrence.

This Procedure was chosen as it is cosmetically more acceptable, can be used for the haemangiomas at inaccessible areas where surgery is difficult, day care procedure and cost effective.

Key words: Haemangioma neck and conservative management.

Introduction

Haemangioma is the most common neonatal tumor, with an incidence as high as 10%. Of all infantile haemangiomas (IH), 85% manifest themselves in the first few weeks of life. The most common location is the head and neck (59%) followed by trunk (24%). Approximately 50% of these lesions are completely resolve by 5 years of age and 70% by 7 years of age. An IH can be diagnosed with a careful history and physical examination. The lesion is usually not present at birth. It proliferates during the first year of life and then decreases in size and involutes. The appearance of an IH reflects its depth. Superficial IH are raised and bright red. The most accurate diagnostic

radiologic procedure to evaluate IH is Magnetic Resonance Imaging (MRI).

Case Report

A 10 year-old young male came to our E.N.T Out door patient Department with the complaint of a swelling over the right side of Neck since few years which was very slowly enlarging. The swelling mainly involved the middle third of right side of Neck about 3cm x 3cm in size. The swelling was solitary, soft, nontender, and non pulsatile with no cervical Lymphadenopathy and blanched on applying pressure.

After taking detailed History and doing Clinical examination we provisionally diagnosed as a case of Haemangioma of the Neck.

Correspondence: A. Lavania

E-mail: ajayisdiamond@rediffmail.com

Apart from routine and disease specific Investigation, Sonography was done and diagnosed as Haemangioma.

Patient was shifted to the procedure room and Inj Polidocanol 3% was diluted with Normal saline in 1:3 ratio and Injected intraluminal into the lesion. The position was confirmed by aspirating and inj.Polidocanol was injected after test dose. Entire procedure was uneventful and patient tolerated the procedure well.

After the procedure Compression bandage was applied and patient was kept under observation for few hours and discharged the same day.

Patient was reviewed after one week and Procedure was repeated the same way. After three sittings the size of the lesion reduced drastically and patient was clinically improved.

The patient was followed up after one month and there was no sign of recurrence.

This Procedure was chosen as it is cosmetically more acceptable, can be used for the haemangiomas at inaccessible areas where surgery is difficult, day care procedure and cost effective.

Fig. 1: Pre Sclerotherapy



Fig. 2: Procedure



Fig. 2: Post Sclerotherapy



Discussion

The word "Haemangioma" comes from the greek word – haema means blood, angio means vessel & the suffix oma means tumour, as a result it is a blood vessel tumor. It is a tumor of infancy & most cases appear during the first days or weeks of life & resolve within the age of 10 years.

Haemangiomas are common lesions of face, nose, throat, ear, neck, liver and most often seen to involve the lips, tongue and buccal mucosa. They are classified into three basic types, capillary haemangioma, cavernous haemangioma and arterial or plexiform haemangioma. Before considering the haemangioma,

it is important to understand that there have been changes in the terminology used to define, describe and categorise vascular anomalies. The term haemangioma was originally used to describe any vascular tumor like structure, where it was present at or around birth or appeared in

later life.

Mulliken et al³. categorised the conditions into two families, a family of self involuting tumours growing lesions that eventually disappear and another family of malformations (enlarged or abnormal vessels present at birth and essentially permanent) The importance of this distinction is that it makes possible for early in-life differentiation between lesions that will resolve versus that are permanent .

Haemangiomas are the most common childhood tumor. Females are five times more likely to have haemangiomas than male but our patient is male. They are also common in twin pregnancies. Approximately 80% are located on the face and neck, with next most prevalent location being the liver^{4,5}

The most frequent complaints about haemangioma, however, stem from psychosocial complications, the condition can affect a person's appearance and can provoke attention and malicious reaction from others. The potential for psychological injury develops from school age onwards. It is therefore important to consider treatment prior to school if adequate spontaneous improvement has not occurred. Most haemangiomas disappear without treatment, leaving minimal or no visible marks.

Large haemangiomas can leave visible skin changes secondary to severe stretching of the skin or damage

to surface texture. When haemangiomas interfere with hearing, vision, breathing or threaten significant cosmetic injury, they are usually treated^{6,7}

Up until recently, the mainstay of treatment was oral corticosteroid therapy^{1,2}. Beta blocker treatment using agents such as propranolol revolutionizing therapy, producing impressive responses. A publication in the international literature in June 2008 first suggested that propranolol (a Beta blocker) could be used to treat severe haemangioma⁸

This treatment is proving superior to corticosteroids, in terms of both effectiveness and safety. Surgical removal is sometimes indicated, particularly if there has been delay in commencing treatment and structural changes have become irreversible. Surgery also may be required to correct distortion of appearance, again in the case of inadequate or failed early medical intervention. Our case was excellent after the procedure.

References

1. L.E. Bartoshesky, M. Bull, M. Feingold: Corticosteroid Treatment of Cutaneous Haemangiomas: How effective? A Report on 24 Children, *Clin.Pediatr* 1978;**17**:625.
2. S.R. Cohen, C. Wang: steroid Treatment of Haemangiomas of the head and Neck in Children, *Ann Otol Rhinol Laryngo* 1972;**81**:584.
3. J.B. Mulliken, J. Glowacki. " Hemangiomas and vascular malformations in infants and children: a classification based on endothelial characteristics". *Plast Reconstr Surg* 1982; **69** (3): 412–22.
4. C.M. Branes, S. Huang, A. Kaipainen, et al. "Evidence by molecular profiling for a placental origin of infantile

S. Bhadoria, Management of haemangioma neck using sclerosing agent- a case report

- hemangioma" *Proc Natl Acad Sci U.S.A* 2005; **102** (52): 19097–102.
5. M.E. Kleinman, M.R. Greives, S.S. Churgins, et al. "Hypoxia-induced mediators of stem/progenitor cell trafficking are increased in children with hemangioma". *Arterioscler. Thromb Vasc Biol* 2007; **27**(12): 2664-20.
6. K.M. Pittman, H.W. Losken, M.E. Kleinman, et al. "No evidence for maternal–fetal microchimerism in infantile hemangioma: a molecular genetic investigation" *J Invest Dermatol* 2006; **126** (11): 2533–8.
7. G.L. Heyer, M.M. Dowling, D.J. Licht, et al. The cerebral vasculopathy of PHACES syndrome". *Stroke* 2008; **39** (2): 308-16.
8. C. Leaute-Labreze. "Propranolol for severe hemangiomas of infancy". *New England Journal of Medicine* 2008; **358** (24): 2649-51. *Bangladesh J Otorhinolaryngol* 2010; **16**: (1).