

INTRALESIONAL SCLEROTHERAPY CURE UNUSUAL PRESENTATION OF HEMANGIOMA IN A CHILD

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ABSTRACT

Hemangioma of retropharyngeal space is a rare entity. It usually regresses spontaneously within 9 years of age. History, digital palpation, computed tomography (CT), and fine needle aspiration cytology (FNAC) clinches the diagnosis. We want to report a case of retropharyngeal hemangioma in a 1 year 11 month old female child presented with respiratory distress, diagnosed and treated successfully in our department.

Key words: Retropharyngeal hemangioma; CT scan; Aspiration; sclerotherapy.therapeutic purposes.

INTRODUCTION:

N K, 1 year 11 month old muslim female child from Jharkhand in early August 2010 presented to local doctor

with fever, cough and cold and was treated symptomatically.



Figure 1: photography shows 1year 11 month old girl admitted in our female ward.

She used to have frequent episodes of upper respiratory tract infection (URTI) until last week of January 2011 when she got first attack of breathing difficulty during sleep. Her parents took her to E.N.T department of Ranchi

Medical College where she was admitted and stayed for 2 days. X-ray and CT scan of nasopharynx revealed a retropharyngeal space occupying lesion (S.O.L) and they referred the case to higher center.

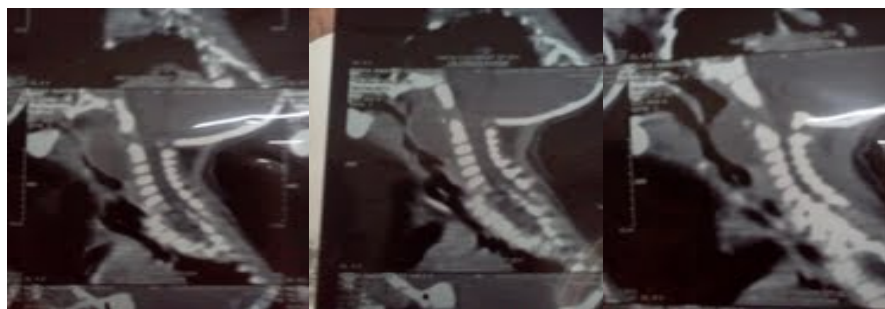


Figure 2: shows retropharyngeal space occupying lesion.

Subsequently, they came to E.N.T department of Calcutta National Medical College and Hospital (CNMCH). Her parents complained of sleepless nights for a fortnight because of the breathing difficulty she felt each time she desires to get asleep. Only in prone position she gets some relief of the distress, but unknowingly during sleep her posture changes to supine and again she feels the distress. On examination her general condition was poor,

cry a bit hoarse and she was very much apprehensive. She was admitted on 22nd February 2011 and planned for examination of the space occupying lesion (SOL) under general anesthesia. In operation theatre (OT) digital palpation was done under general anesthesia. A cystic retropharyngeal mass was diagnosed. On aspiration of the cystic mass 15 ml of altered blood came out.

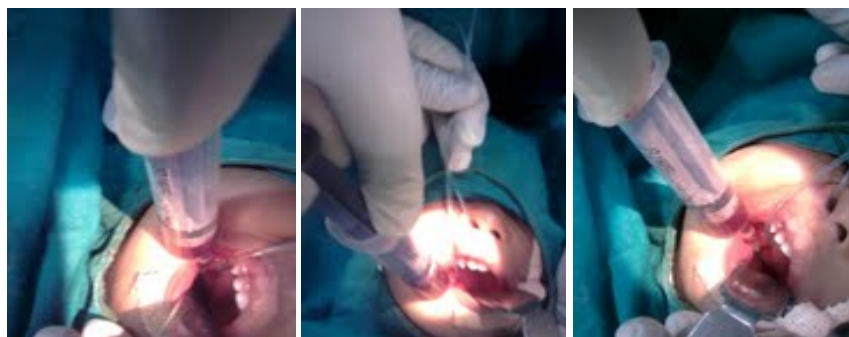


Figure 3: shows aspiration of altered blood from retropharyngeal mass.

Cytologic examination of that fluid showed RBC-5.5 million/dl, WBC-6400/dl, Platelet-1,50,000/ml and no pus cells.

She was kept under observation for 5-6 days and was discharged. In late March 2011 she was readmitted in our department with the same complaints. Digital palpation and aspiration done under general anesthesia. At this time 10 ml of fluid was aspirated followed by injection of sclerosing agent sodium tetra-decyl sulfate (2ml of the sclerosing agent was mixed with 4ml of distilled water). She was asked to come for follow-up 2-3 weeks later. For approximately 4 months she did well. On 6th June 2011 again she got admitted but there was mild breathing problem and examination under general anesthesia was done. At this time no fluid came out of the aspiration but 2ml of same diluted sclerosing agent injected into the site. Follow-up CT scan of neck was found normal. The patient is under regular follow up and leading normal life.

DISCUSSION:

The retropharyngeal space lies between the buccopharyngeal fascia covering posterior pharyngeal wall anteriorly and cervical vertebra with pre-vertebral muscle covered by pre-vertebral fascia posteriorly. This space is divided into two compartments (right and left) by its attachment with the median raphe. Types of retropharyngeal space occupying lesion;- 1. congenital (Brachial cleft cyst, ectopic thyroid), 2. inflammatory (retropharyngeal abscess and retro-pharyngeal cellulitis), 3. neoplastic (cystic hygroma, neuro-fibroma, neuroblastoma, haemangioma), 4. traumatic (foreign body, hematoma) and 5. metabolic (hypo-thyroidism). Of them

the haemangioma is a rare cystic mass in this space, a benign tumor that grows within the blood vessels. Hemangiomas are the most common childhood tumor. A **hemangioma** (comes from the Latin words **hemangio** meaning blood vessel and **oma** meaning tumor with active cell dividing activity) is a benign self-involuting tumor of endothelial cells. This tumor is most often found on the head or neck. However, they may occur anywhere on the skin or internal organs. It is usually found at two to four months of age. In most cases hemangioma appears during the first days or weeks of life and resolve at the latest by age 10. Hemangiomas never develop in an adult. There is no reason in this day to accept that the only option available is to 'leave it alone' and wait for the hemangioma to 'go away' or allow to attaining mega size. Secondly, the most appropriate treatment plan needs to be individualized for each patient and each lesion. Therefore, similar lesions in different patients may be treated differently [1-2].

Sclerotherapy is a procedure used to treat blood vessels or blood vessel malformations (vascular malformations) and also those of the lymphatic system. A medicine is injected into the vessels, which makes them shrink. It is used for children and young adults with vascular or lymphatic malformations. In adults, sclerotherapy is often used to treat varicose veins and hemorrhoids. Sclerosant is diluted with blood as it diffuses away from the site of injection, thus if a strong sclerosant is injected there will be three zones of action. In zone 1, vascular endothelium is irreversibly injured: the vessel will be fully sclerosed and eventually will be completely replaced by a fibrous tissue. In zone 2, vascular endothelium is injured, and the vessel

will be partially or completely thrombosed but will eventually recanalize. In zone 3 the sclerosant will be diluted below its injurious concentration, and there will be no endothelial injury. Sclerosants are polidocanol, 5% phenol, absolute alcohol, hot water, hypertonic saline and sodium tetradecyl sulphate [3]. In our case we unanimously thought that sclerotherapy would be the best treatment option and accordingly we did it. We used sodium tetradecyl sulphate as sclerosant. Being a detergent-based chemical, its action is on the lipid molecules in the cells of the vein wall, causing destruction of the internal lining of the vein and causing them to shed, leading to thrombosis, fibrosis, and obliteration (sclerosis). It is used in concentrations ranging from 0.1% to 3% for this purpose. Until now the patient is relieved of the distress with this treatment (1 and half years follow up) and we expect no recurrence in future.

There are various types of treatment protocol like sclerotherapy, laser, interferon alfa 2, intralesional corticosteroid therapy [3-6] but we used sclerotherapy with successful result without any complication.

CONCLUSION:

Hemangioma of retropharyngeal space is a rare entity. CT scan followed by digital palpation and FNAC can clinch the

diagnosis in case of retropharyngeal hemangioma presented with respiratory distress. Repeated aspiration of collected fluid and sclerotherapy in hemangioma is a preferable treatment option.

REFERENCES:

1. Fishman SJ, Mulliken JB. Hemangiomas and vascular malformations of infancy and childhood. *Pediatr Clin North Am.* 1993 Dec; 40(6):1177-200.
2. McCook TA, Felman AH. Retropharyngeal masses in infants and young children. *Am J Dis Child.* 1979 Jan; 133(1):41-3.
3. Woods J E. Extended use of sodium tetradecyl sulfate in treatment of hemangiomas and other related conditions. *Plast Reconstr Surg.* 1987 Apr;79(4):542-9.
4. Landthaler M, Hohenleutner U, el-Raheem TA. Laser therapy of childhood haemangiomas. *Br J Dermatol.* 1995 Aug; 133(2):275-81.
5. Gawrych E, Walecka A, Rajewska J, Juszkievicz P. Intralesional corticosteroid therapy in infantile hemangiomas. *Ann Acad Med Stetin.* 2009;55(1):15-21.
6. Ezekowitz RA, Mulliken JB, Folkman J. Interferon alfa-2a therapy for life-threatening hemangiomas of infancy. *N Engl J Med.* 1992 May 28;326(22):1456-63