ORIGINAL RESEARCH PAPER
Volume - 15 | Issue - 02 | February - 2026 | PRINT ISSN No. 2277 - 8179 | DOI : 10.36106/ijsr
INTERNATIONAL JOURNAL OF SCIENTIFIC RESEARCH

ANESTHETIC AND AIRWAY MANAGEMENT OF A RARE CASE OF UPPER LIP HEMANGIOMA WITH REDUCED MOUTH OPENING AND DIFFICULT AIRWAY.

Anaesthesiology

Dr. Sarvesh G Jaju MBBS Intern, Department of Anesthesiology, DVVPF'S Medical College and Hospital, Ahilyanagar.

Dr. Ganesh S Jethliya MBBS Intern, Department of Anesthesiology, DVVPF'S Medical College and Hospital, Ahilyanagar.

Dr. Satish Deshpande Professor and Head, Department of Anesthesiology, DVVPF'S Medical College and Hospital, Ahilyanagar.

Dr. Lohit Sureshchandra Vaishnao* 3rd year Junior Resident, Department of Anesthesiology, DVVPF'S Medical College and Hospital, Ahilyanagar. *Corresponding Author

Dr. Akshata W Somankar 2nd year Junior Resident, Department of Anesthesiology, DVVPF'S Medical College and Hospital, Ahilyanagar.

ABSTRACT

A 21-years-old male patient weighing 62 kg came to the plastic surgery out-patient department by his relatives with chief complaints of sudden increase in size of a swelling over the upper lip and difficulty in eating for the last 20 days. It was diagnosed as a case of hemangioma of the upper lip. All the routine and special investigations including coagulation profile of the patient were normal. The patient was planned for ablation of feeding vessels along with intralesional steroid injection. Airway management of the child posed the challenge for us as the size and site of the lesion carried the risk of difficult intubation and possible risk of extensive hemorrhage. All the requisite equipment for difficult airway management was made ready. We were able to intubate the patient with a video laryngoscope number-4 blade from the right angle of mouth without putting much pressure on the swelling. The surgical and postoperative period was uneventful and the patient was discharged the next day to be followed up after one week.

KEYWORDS

INTRODUCTION

The hemangiomas of the face, head and neck region represents almost one-third of all hemangiomas in humans. The incidence in newborn is 1-3% and it progressively increases with age up to 1 year when its incidence increases to 10%.[1] Among them, oral lesions are very common and represent about 14% of all human hemangiomas.[2] The anesthetic consideration mainly stresses upon the blood loss. But if the site of lesion involves the facial or oral tissues, then airway management acquires a prime importance along with the management of possible hemorrhagic loss. We are reporting a case of a large hemangioma of the upper lip in a patient of 21 years who was brought to our institute by his relatives for the surgical treatment of the lesion.

CASE REPORT:

An 21 years old male patient was brought to the plastic surgery OPD of our institute by his relatives with the chief complaints of increase in size of a swelling over upper lip with difficulty in oral intake for the last 15-20 days. On eliciting the history, it was revealed that the lesion was present since birth and had been gradually enlarging. The size of the lesion was measured to be 10×5.5×3.5 cm and was diagnosed as a case of hemangioma upper lip [Figures 1].

Previously, the patient did not have much difficulty in drinking or ingestion of food but the difficulty rose since 15-20 days as the lesion had suddenly enlarged. He was eating with the spoon from the angle of the mouth. Considering the age of the patient, size of the lesion and most importantly the site of the hemangioma, it was planned to ablate and strangulate the vessels during the first stage so as to decrease the size of lesion before proceeding for surgical excision. Preanesthetic assessment revealed a narrow mouth opening(1- 2 fingers)with difficulty in assessing the mallampatti grading[Figure 1]. All the investigations were within normal limits including the coagulogram and weight of the patient was found to be 60 kg.

General anesthesia was planned for the patient with main stress upon airway management. The patient was kept in a fasting state for 6 hours and was administered injection Ondensetron 4 mg 30 minutes before the surgical procedure as an antiemetic. Airway trolley was made ready with all the airway equipment including the MacCoy laryngoscope, Videolaryngoscope, and Fibreoptic bronchoscope and Crycothyrotome.

The patient was taken to the operation theatre and developed a good rapport with the patient. All the standard ASA monitors were attached. Induction of anesthesia was achieved with sevoflurane in 8 L of oxygen administered through number 4 face mask attached to the workstation circuit while covering the eyes with soft cotton pad to prevent injury to the eyes. A good intravenous access was secured with 20 G venflow and after establishing a good breathing pattern evident from the bag movements we administered 100 mg of Fentanyl and 100 mg of Propofol after administering intravenous Lignocaine. When we were sure that we can easily ventilate the patient, we administered 100 mg of succinylcholine while sevoflurane was kept at 2.5% during this stage. Gentle positive pressure ventilation was carried out for 1 minute. Laryngoscopy was tried with blade size 4 from the left corner of the mouth but due to decreased mouth opening, the laryngoscope was difficult to insert so the Videolaryngoscope with less thickness of blade is used and tongue was lifted in a diagonal manner and we were able to see the full view of glottis. During the whole exercise of laryngoscopy the fulcrum on the upper teeth was never made; rather a forward and upward pressure was maintained without even touching the mass. An oral RAE endotracheal tube number 8 mm (internal diameter) was inserted from the right corner of the mouth while an assistant helped continuously in raising the mass with a soft cotton pad with gentle force so as to enable laryngoscopy and a good intraoral view. After checking the equal air entry bilaterally, we packed the oral cavity with a roll gauge to prevent any aspiration of secretions or possibly blood as the tube was without a protective cuff. The patient was then paralyzed with 6 mg of injection Vecuronium and positive pressure ventilation was carried out with nitrous oxide and oxygen in the ratio of 60:40 on the ventilator.

Right from the beginning a team of plastic surgeon, a general surgeon and an otorhinolaryngeologist were scrubbed and ready with their equipment. Surgical procedure was initiated and peripheral surgical ablation of the feeding vessels was done with electric cauterization. Thereafter the intralesional injection of steroid was administered. The surgical procedure lasted for 30 minutes and at the end of surgery the patient was reversed with injection of neostigmine and glycopyrrolate. The dry intraoral roll gauge pack was removed and the patient was extubated in a fully awake state after establishment of adequate and rhythmic respiratory efforts with good tidal volume and flexion of legs at the hip joint. The patient was kept in the post anesthesia care unit

(PACU) for 2 hours and later on shifted to the surgical intensive care unit for observation where he was kept for another 1 day and was discharged after an uneventful recovery period during the hospital stay. The patient was instructed for follow-up after 15 days.

Figure 1: Frontal view picture of the patient showing the large sized haemangioma of the upper lip

DISCUSSION:

Hemangiomas are usually present at birth but may develop later on also but most of them arise because of developmental anomalies.[3]

The heterogeneous clinical representation of vascular deformities has resulted in a diagnostic ambiguity regarding their denotation. Mulliken and Glowacki (1982) attempted to resolve this uncertainty and were the first to elucidate a systematized terminology of vascular anomalies.[4]

The mucosal hemangioma is characterized by a well-circumscribed, soft, painless lesion which is blue or red in appearance. The growth of these lesions in the elderly is quite slow but congenital lesions keep up a good pace with the physical growth. Sometimes, the overlying lesion can cause compression symptoms on the underlying tissues causing pressure atrophy of the tissues and bones. Pathologically, it is characterized by abundance of intertwined capillaries or veins which helps in their structural classification either into capillary or cavernous hemangioma. The anastomosis between capillaries and veins can lead to formation of arteriovenous hemangioma. Usually, these hemangiomas are asymptomatic, but their presence especially on facial region has got numerous cosmetic implications and considerations.[5] It brings a feeling of inferiority complex in the grown-ups as it causes aesthetic deformities while in children it can be the reason for teasing among the peer group, in adults it leads to hamper quality of life. If the lesion is fast growing and involves the mucosa of lip, it can interfere with the daily routine activities like eating or drinking or can block the opening of nostrils thusc a u s i n g difficulty in breathing.[6] Management of such patients, who present for surgery, involves a lot of anesthetic and surgical considerations.

The oral lesions,especially of lips, provide a very difficult situation for the attending anesthesiologist. The airway management of such challenging cases has to be planned precisely. The limited number of airway gadgets and equipment to deal with difficult airway, difficulty in managing the anatomical and functional aspects of airway and the decreased cardiorespiratory reserve makes the job of an anesthesiologist hugely challenging. To compound the matters further, if some lesion is present on any part of this anatomical track the degree of difficulty increases manifold.[6]

In our case, this degree of difficulty was associated with many other challenges also. Not only the site of lesion was a major problem but its size too added much scores to the predicted difficulty. All the more, it was a highly vascular lesion and any pressure on it during the airway management could have caused uncontrolled bleeding from it. That's why we were ready with the fibreoptic bronchoscope. Laryngeal mask airway was another option but it was also fraught with dangers of dislodgement and risk of aspiration during the surgical procedure. We decided to proceed with videolaryngoscopy as we were encouraged by a good breathing pattern during the initial stages of induction of anesthesia. We chose a video laryngoscope blade rather than a normal curved one as the latter was difficult to use from the left corner of the mouth due to reduced mouth opening.

From surgical point of view, various options include intralesional injection of sclerosing agents or steroids, laser ablation, cryosurgery, implantation or external irradiation and ablation of feeding vessels.[7]

The age of the patient, size of the lesion, site of the hemangioma, the clinical back-up facilities like presence of vascular surgeon and the intensive care as well as cosmetic considerations determine the type of surgical intervention to be undertaken. In this case peripheral surgical cauterization was done followed by intralesional injection of triamcinolone acetonide and betamethasone acetate. The peripheral electric cauterization was aimed at ablation of feeding vessels while steroids have a huge success rate, to the extent of 77% in some cases in the involution of hemangiomas.[8-10] A good cooperation between the surgical and the anesthesia team is required for the successful treatment of such giant lesions. An insightful surgeon and an experienced and skilled anesthetist are the prerequisites of such surgical procedures. The protocols and guidelines for difficult airway management have to be followed while dealing with such challenging cases so as to prevent any catastrophes.[11-13]

CONCLUSION:

A rare case of upper lip hemangioma with reduced mouth opening and difficult airway was managed successfully after securing airway using video laryngoscope to avoid any trauma during anesthetic manipulation.

REFERENCES:

1. Finn MC, Glowacki J, Mulliken JB. Congenital vascular lesions: clinical application of a new classification. J Pediatr Surg 1983;18:894.
2. Chiller KG, Passaro D, Frieden IJ. Hemangiomas of infancy: clinical characteristics, morphologic subtypes, and their relationship to race, ethnicity, and sex. Arch Dermatol 2002;138:1567-76.
3. Mulliken JB, Glowacki J. Hemangiomas and vascular malformations of infants and children, a classification based on endothelial characteristics. Plast Reconstr Surg 1982;69:412.
4. Vivar KL, Mancini AJ: Infantile hemangiomas: an update on pathogenesis, associations, and management . Indian J Paediatr Dermatol. 2018, 19:293-303.
5. Enjolras O, Riche MC, Merland JJ. Management of alarming hemangiomas in infancy: a review of 25 cases. Pediatrics 1990;85:491-8.
6. Stringel G, Mercer S. Giant hemangioma in the newborn and infants. Clin Pediatr 1984;23:498-502.
7. Jain P, Sinha JK. A comparative study of some treatment modalities in cutaneous haemangiomas. Indian J Plast Surg 1995;28:77-9.
8. Chowdri NA, Darzi MA, Fazili Z, Iqbal S. Intralesional corticosteroid therapy for childhood cutaneous hemangiomas. Ann Plast Surg 1994;33:46-51.
9. Sloan GM, Reinish JF, Nichter LS, Saber WL, Lew K, Morwood DT. Intralesional corticosteroid therapy for infantile hemangiomas. Plast Reconstr Surg 1989;83:459-66.
10. Gangopadhyay AN, Sinha CK, Gopal SC, Gupta DK, Sahoo SP, Ahmad M. Role of steroid in childhood haemangioma: a 10 years review. Int Surg 1997;82:49-51.
11. Practice guidelines for management of the difficult airway: an updated report by the American Society of Anesthesiologists Task Force on Management of the Difficult Airway. Anesthesiology 2003;98:1269.
12. Kheterpal S, Han R, Tremper KK. Incidence and Predictors of Difficult and Impossible Mask Ventilation. Anesthesiology 2006;105:885-91.
13. Luten, RC, Godwin, SA. Pediatric airway techniques. In: Walls RM, editor. Manual of emergency airway management. 2nd ed. Philadelphia: Williams Wilkins; 2004. p. 228.