Oral Steroids For Tongue Hemangioma

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Citation

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Abstract

A 3-year old child with extensive hemangioma of the oral tongue was treated with oral prednisolone in an attempt to reduce morbidity. The child is under follow up with continuing regression of the lesion with no evidence of relapse. The advantage of a short course of systemic corticosteroids over other modes of therapy in hemangiomas requiring treatment is being discussed here.

INTRODUCTION

Hemangiomas are among the most common neoplasms encountered in the pediatric age group. The majority of capillary and cavernous hemangiomas involute spontaneously with good cosmetic results[1], but difficulty arises when intervention is forced by involvement of a vital structure and excessively rapid growth with marked disfigurement, tissue destruction and functional morbidity.

Several modes of therapy have been employed in these complicated cases, and each has its limitations. Surgical excision may result in scarring and recurrence or loss of a vital function[2]. Injection of sclerosing agents is undependable and painful, and the use of refrigerants may cause severe atrophy[1]. Irradiation has been associated with damage to the epiphyses[3], breasts, gonads and skin[4], and, in a large series, yielded no better results than in untreated controls[5]. Not only are these methods ineffective in some cases, but the incidence of complications in treated patients has been reported to be more than ten times than in untreated individuals[2].

Besides these, the other modalities used in the management of oral hemangiomas include: cryotherapy[6], embolization[7], photocoagulation[8] and carbon dioxide laser[9]. Systemic steroids have been suggested for the treatment of visual or respiratory obstruction caused by a rapidly enlarging hemangioma or to treat the complications of Kasabech-Merrit syndrome[10]. The role of oral steroids in the management of extensive tongue hamangiomas is still unexplored as the primary modality for these tumours remains surgery. We report one such case treated successfully with oral prednisolone.

CASE REPORT

A three year old child was brought to our out patient department with a large tongue swelling completely occluding the oral commisure, inability to retract the tongue into the oral cavity and difficulty in feeding for the past one month. The child's parents informed that a small mass was present on the tip and left lateral margin of the tongue since birth and a local practitioner told them about the possibility of spontaneous regression of the mass. The mass has been progressing gradually since then, and, for the past five to six months, it had progressed rapidly. There was no history of any spontaneous bleeding or any similar mass anywhere on the body. On examination, the anterior half of the tongue was enlarged and lying outside the oral cavity with inability to retract the tongue with the dorsal surface showing areas of blood-stained crusting (figure1). Aspiration cytology and a computerized tomography were done which revealed it to be a hemangioma involving the oral tongue with extension into the base of tongue. Considering the nature and extent of the surgery and the likely functional disability, the patient was put on a trial of oral steroids. The patient received oral prednisolone in a dose of 2 mg./kg. body weight per day for 4 weeks. The patient showed a dramatic regression in the size of the tongue relieving the obstruction at the oral commisure with establishment of routine feeding (figure 2). Prednisolone was gradually tapered off over the next 4 weeks.

Figure 1

Figure 1: Inability to retract the tongue (on presentation).

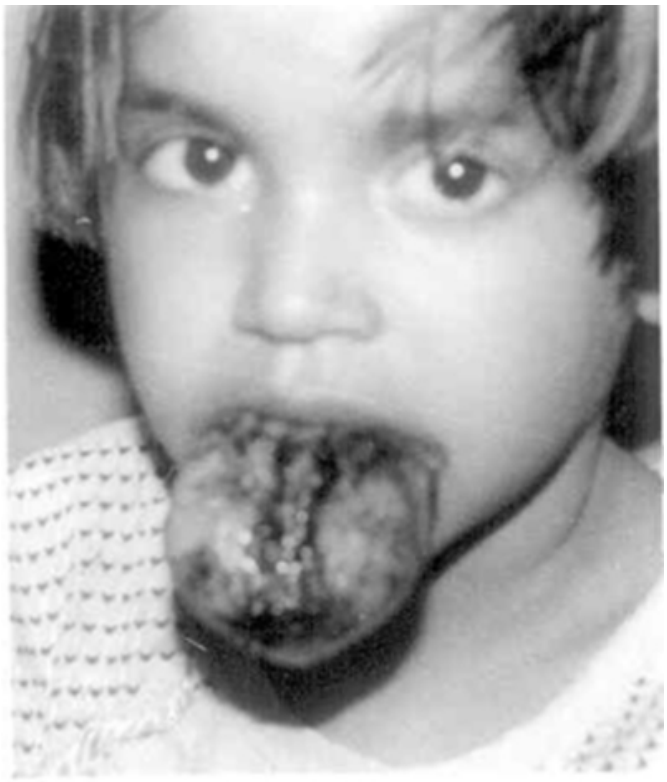
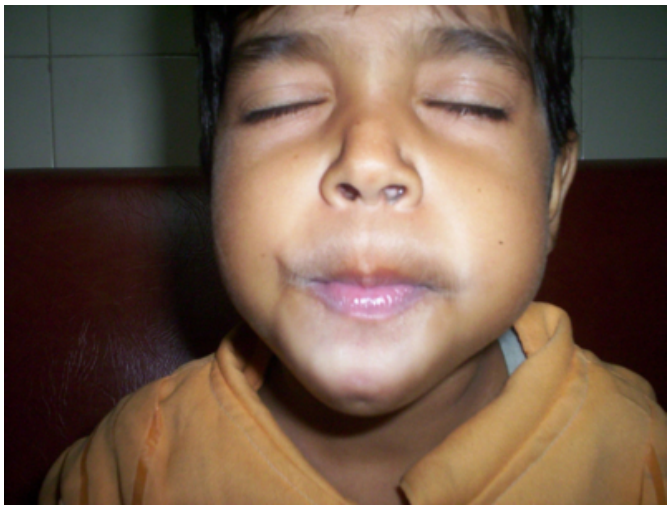


Figure 2

Figure 2: Tongue retracted inside the mouth (after 4 weeks of treatment).



DISCUSSION

The natural history of most juvenile hamangiomas is one of spontaneous but irregular regression. Although spontaneous resolution may be expected in the vast majority of patients[1], certain situations preclude an expectant approach. Rapid growth of a hamangioma, particularly about the face and neck, is not only cosmetically distressing, but may interfere with vital functions.

Hemangiomas of the tongue are associated more with functional problems than any cosmetic deformities. The smaller hamangiomas may remain silent for long, but, the larger ones usually cause problems with feeding by causing narrowing at the oral commissure and limitation of tongue movements. Likewise, in the present case, the patient had a congenital hamangioma, which, because of its small size, produced no cosmetic or functional problems for two and a half years. But, the rapid growth of the tumor caused both functional and cosmetic problems that made her come to us. The diagnosis of hemangioma was based on a high index of clinical suspicion aided by an aspiration cytology and computerized tomography with contrast. The tumor was involving almost the whole of anterior two thirds of tongue, bilaterally with extension into the base of tongue. Surgical excision of such an extensive lesion was likely to be associated with the loss of a significant portion of tongue tissue with associated functional debility. The child was put on a trial of oral prednisolone for 4 weeks with dramatic improvement.

Other modalities available for such lesions include radiotherapy, injection of sclerosing agents and cryotherapy. All these modalities have been associated with significant drawbacks. Intralesional corticosteroid is another treatment option. It may produce more rapid results due to high local concentrations achieved. But, general anaesthesia is required for each injection because of pain from the procedure.

The mechanism of action of systemic corticosteroids on hamangiomas is unknown. Studies on adrenalectomized rats have shown that corticosteroids increase vascular sensitivity to circulating vasoconstrictive agents[11]. Fost and Esterly[12] have suggested that the immature, rapidly proliferating vessels of these hamangiomas may be particularly sensitive to changes in the level of corticosteroids.

Although, surgical excision remains the mainstay when it comes to managing tongue hemangiomas, we would propose, that children with severe or progressive disease be treated with a trial course of prednisolone after a thorough medical evaluation to exclude conditions that contraindicate steroid therapy.

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