

# Intraoral Capillary Hemangioma of Hard Palate: Case Report

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**Abstract:** Hemangiomas are common benign vascular tumors of the head and neck region which account for 7% of all benign tumors of infancy and childhood. Hemangiomas occur due to proliferation of endothelial cells of blood vessels. They are uncommonly encountered by the dentists. Although hemangioma of the head and neck region are common, these are rarely seen in the oral cavity, especially hard palate. Normally, such rare cases of hemangiomas can be misdiagnosed as any other pathologies. So, the proper diagnosis and management is very important to reduce the intraoperative and postoperative complications. The purpose of this article is to report an unusual case of benign tumour occurring on hard palate which was clinically diagnosed as pyogenic granuloma and histopathologically as capillary hemangioma.

**Keywords:** Hemangioma; Pyogenic granuloma; Hamartoma; Vascular malformations

## 1. Introduction

Hemangiomas are the benign tumors characterized by the proliferation of blood vessels.<sup>1</sup> They are considered to be the most common tumors of childhood, occurring in about 5–10% of children less than 1 year of age, exhibiting a rapid growth phase with endothelial cell proliferation followed by gradual involution.<sup>2</sup> Clinically, Capillary Hemangiomas appear as flat or raised, red-blue lesions and are generally solitary. They are soft to touch and sessile or pedunculated and may be smooth or bulbous in shape. These tumors exhibit a rapid growth phase and slowly involute.<sup>3</sup>

## 2. Case Report

A 12-year-old male child presented to the department with the chief complaint of swelling on the posterolateral part of the hard palate since 6 months. The swelling initially was of the size of a peanut when his parents first noticed and gradually attained the present size. The patient did not give any relevant past medical or dental history. The growth was asymptomatic. Intraoral soft tissue examination revealed a solitary, pedunculated, spherical shaped, coral pink swelling with distinct border and irregular surface approximately measuring around 3 x 3 cm in size extending from mesial of 12 to mesial of 26 located in the posterior part of the the hard palate. The surrounding mucosa was normal. On palpation the swelling was nontender, soft to firm in consistency and pulsatile. Based on clinical signs and symptoms a provisional diagnosis of pyogenic granuloma

was made, however hemangioma was considered as differential diagnosis. Considering the size of lesion and age of patient we planned for excisional biopsy under local anaesthesia with all necessary emergency equipment at hand. The hemogram was within normal limits and bleeding time and clotting time were normal. Under local anaesthesia the growth was carefully excised using cautery. During excision haemorrhage was encountered from the the greater palatine vessel. The vessel was identified and cauterized. The patient was recalled for routine follow up examination. To avoid reactionary haemorrhage and oral contamination COE pack was placed in the defect. Patient is on regular followup since 3 months with no signs of recurrence.

## 3. Discussion

Vascular lesions can be generally divided into hemangiomas and vascular malformations.<sup>4</sup> Mullikan and Glowacki described the classification of vascular lesions based on clinical and microscopic features in the year 1982.<sup>5</sup> Hemangiomas are considered as true neoplasm of the vascular endothelial cells, but there is some controversy that still occurs whether to classify hemangiomas as either malformations or hamartomas. Hemangiomas are common benign tumors of the head and neck region but they rarely occur in the oral cavity. The lesions of the oral cavity generally are seen over the lips, buccal mucosa and tongue, but rarely seen on the hard and soft palate. Incidence of hemangiomas are more common in females than males.<sup>6</sup>

Capillary hemangiomas are normally superficial small pedunculated lesions. They differ from other variants like central and cavernous which occur as large superficial or deep lesions.<sup>7</sup> Capillary hemangiomas can be either sessile or pedunculated lesions which are painless until traumatized. In the present case, the lesion was superficial and pedunculated which is suggestive of capillary variant. Since there are no particular criteria for the diagnosis of capillary hemangiomas, proper clinical history and histopathological study can help us in diagnosing the lesion. Occurrence of hemangiomas in the hard palate is very rare and very few cases were reported in literature. Usually hemangiomas do not affect the adjacent bone as seen in the present case. The differential diagnosis of hemangiomas include Pyogenic Granuloma (PG), peripheral giant cell granuloma, epulis granulomatosa, and squamous cell carcinoma.<sup>8,9</sup>

The management of capillary hemangioma depends on age of the patient, size, extent and variant of hemangiomas occurring in the oral cavity.<sup>10</sup> Normally in the initial stages no intervention is required since there is a chance of involution of the lesion on aging. But in the present case, since the lesion was small without any bony involvement and to conclude the diagnosis, excisional biopsy was planned. Small lesions can be successfully excised without any complications with proper measures for bleeding control.<sup>11,12</sup>

Most common complication which can occur during excision of capillary hemangioma can be intraoperative bleeding, which can be controlled with proper measures to arrest bleeding. In the present case hemostasis was achieved using local pressure application and cauterization. And further the wound healing was uneventful.

Recently reported treatment modalities for hemangiomas in the literature includes steroid therapy, electrosurgery, Nd:YAG laser, CO<sub>2</sub> laser, cryosurgery, and sclerotherapy.<sup>13,14</sup>

Nowadays, sclerotherapy is the largely used treatment modality for the capillary hemangioma because of its ability and efficiency to preserve the surrounding tissue.<sup>15</sup> Some studies have reported the recurrence of hemangioma after surgical management.<sup>16,17</sup> In the present case there has been no subsequent haemorrhage or other evidence of recurrence of lesion.

#### 4. Conclusion

Haemangiomas are relatively common benign proliferations of vascular channels that may be present at birth or arise during early childhood. Intraoral capillary hemangioma is an uncommon pathologic entity. Simple surgical excision of capillary hemangioma may lead to intraoperative and postoperative bleeding, and hence it should be performed with caution. Therefore, we should be aware of these risks during diagnosis, and management and should take necessary precautions prior to the excision of these lesions.

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#### Figures





Figure 1: Clinical view of the capillary hemangioma



Figure 4: Clinical view following excision and use of COE pack



Figure 2: Clinical view of the pedunculated mass



Figure 5: 3 month followup intraoral clinical photograph

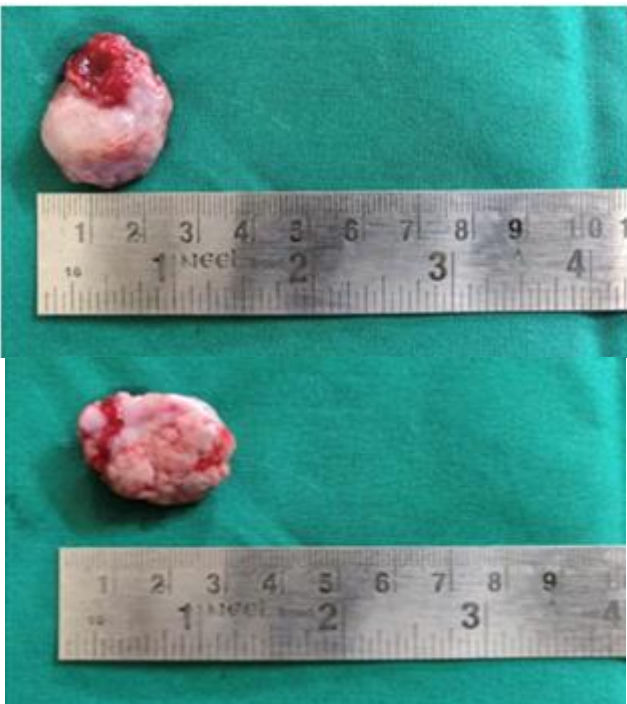


Figure 3: Excised specimen

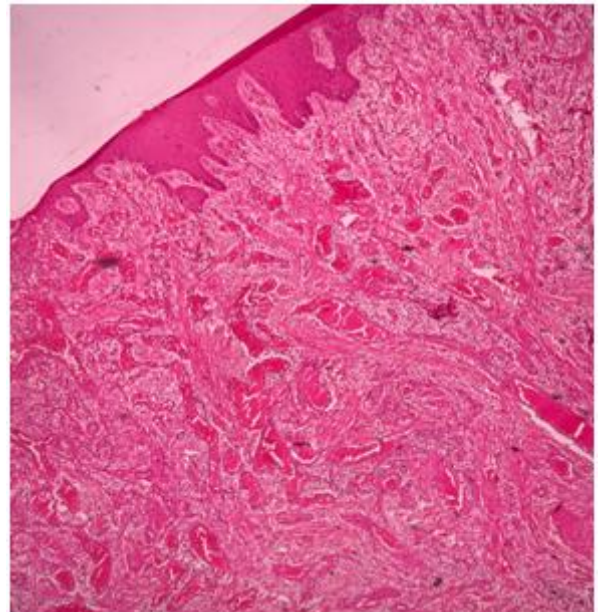
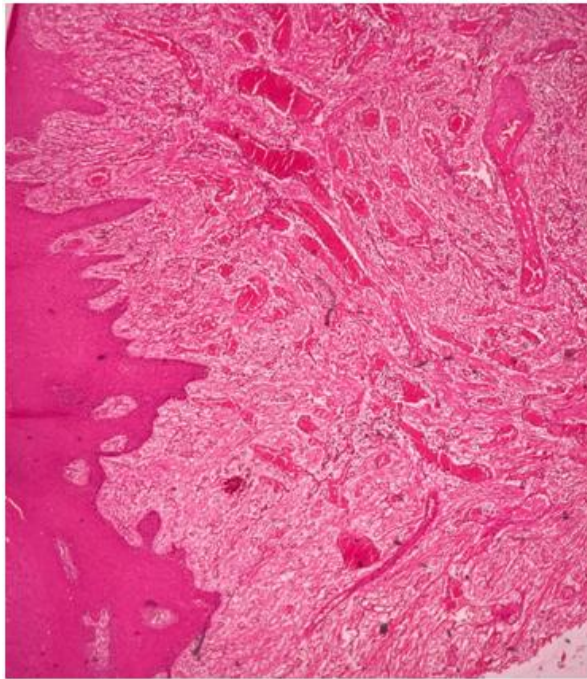


Figure 6: Histograph showing parakeratinised stratified squamous epithelium



**Figure 7:** Histograph showing a mixed inflammatory component