

Diagnosis and Treatment of Oral Capillary Hemangioma: A Case Report

Oral Kapiller Hemanjiyom Tanısı ve Tedavisi: Olgu Sunumu

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ABSTRACT

Hemangiomas are benign blood vessel proliferations that usually occur in childhood. The incidence in women is about two times higher than in men. Although hemangiomas are usually asymptomatic, intervention may be required due to their localization and size. Early diagnosis, and treatment are the key factors to prevent complications.

A 48 year old female patient was admitted to our clinic with the complaint of painless swelling in the mouth. As a result of the intraoral examination, an ulcerous lesion of 4 cm in diameter was detected in the posterior region of the left mandible, on the alveolar crest, raised from the surface, red-pink color. As a result of the biopsy, specimen was diagnosed as ulcerated capillary hemangioma. The lesion was completely excised under local anesthesia with an electrocautery device, and uneventful recovery was achieved. No recurrence was observed in the 6-month follow-up period. Regular follow-up examinations were recommended to the patient.

The aim of this case report is to present information about the diagnosis, treatment and clinical follow-up of capillary hemangioma on the alveolar crest in the mouth.

Keywords: Hemangioma, Biopsy, Pathology, Oral

ÖZET

Hemanjiyomlar, genellikle çocukluk çağında görülen iyi huylu kan damarı proliferasyonlarıdır. Kadınlarda görülme sıklığı erkeklere göre yaklaşık iki kat daha fazladır. Hemanjiyomlar, genellikle asemptomatiktir, müdahale gerektirmez; fakat bazı durumlarda lokalizasyonu ve boyutları nedeniyle tedavi gerekebilir. Erken teşhis ve tedavi, oluşabilecek komplikasyonları önlemede anahtar rol oynamaktadır.

48 yaşında kadın hasta ağız içinde ağrısız şişlik şikayeti ile kliniğimize başvurdu. Yapılan intraoral incelemede; sol mandibula posterior alveol kret üzerinde yüzeysel kabarıklık, kırmızı- pembe renkte ve 4 cm çapında ülser lezyon tespit edildi. Yapılan biyopsi sonucunda hastaya ülser kapiller hemanjiyom tanısı kondu. Lezyon elektrokoter cihazı ile lokal anestezi altında total olarak eksize edilip iyileşme sağlandı ve 6 aylık takip sürecinde herhangi bir nüks gözlenmedi. Hastaya düzenli takip muayeneleri önerildi.

Bu olgu sunumunda amaç, ağız içinde alveol kret üzerinde görülen kapiller hemanjiyomun tanısı, tedavisi ve klinik takibi ile ilgili bilgiler sunmaktır.

Anahtar kelimeler: Hemanjiyom, Biyopsi, Patoloji, Oral

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INTRODUCTION

Hemangioma was firstly described in literature by Liston in 1843. It is a benign vascular tumor that characterized by endothelial cell proliferation and followed by involution. Hemangiomas are the most commonly encountered benign tumors that occur at head and neck region in infancy. Mostly, they do not require treatment without signs and symptoms and more common in females than males (Chen et al., 2009; Mitra et al., 2016).

Hemangiomas are mainly classified into two types which are peripheral and central hemangiomas. Central hemangioma further divides into subtypes which are capillary, cavernous and mixed. Cavernous hemangiomas are the most aggressive form of the central hemangioma characterized by infiltrative lesions. Hemangiomas can result in complications includes ulceration, infection. Ulceration is the most commonly reported complications of hemangiomas (Haggstrom et al., 2006). Although hemangiomas are mostly reported at head and neck region, they are rarely seen in oral cavity. They are mostly encountered at tongue, buccal mucosa and lip (Singh et al., 2016). Lesion localized over the alveolar crest at our presented case.

Diagnosis of hemangioma is mostly performed by clinical examination and history of the lesion. Radiologic examination is not routinely requested. Colour of the hemangioma changes from red to pink. It can be sessile or pedunculated, smooth and lobulated. Hemangiomas are generally asymptomatic lesions that can bleed as a result of minor trauma or spontaneously. Lesion blanches when the pressure applied over the lesion. Numerous treatment modalities were proposed for management of hemangiomas includes injecting sclerosing agents, radiation and cryotherapy, corticosteroids, propranolol and surgical intervention (Leaute-Labreze et al., 2008; Dilsiz et al., 2009). Surgical intervention with cauterization was the treatment of choice at our described case.

Case Report

48-year-old female patient was referred to Istanbul University, faculty of dentistry, department of oral and maxillofacial surgery for evaluation of painless, bleeding and swelling lesion on the left mandibular posterior region. She had systemically unremarkable. Patient's oral hygiene was not optimal. On the clinical examination, 4 cm in diameter, erythematous, pedunculated lesion characterized by rough surface was noted in edentulous lower left posterior alveolar crest (Figure 1). On palpation, lesion was soft in consistency. Positive result was obtained as result of diascopy procedure. Diascopy is a basic test for blanch ability performed by applying pressure with finger to observe the color changes on lesion. On the radiological examination, there was no bone destruction (Figure 2).



Figure 1. Preoperative view of the lesion (hemangioma).



Figure 2. Orthopantomograph of the patient.



Figure 3. Immediately after the excision of the lesion

After the informed consent was obtained from the patient, excisional biopsy of lesion was performed with electrocautery under the local anesthesia (Figure 3). Specimen was preserved in 10% formalin and sent for histopathological analysis (Figure 4). 4.0 vicryl suture was placed (Figure 5). During the procedure, abnormal bleeding was not reported. Patient was recalled after one week for check-up.



Figure 4. Excised lesion



Figure 5. Postoperative view of excised region (after electrocautery).



Figure 6. 6 month follow up healing.

Histopathological examination revealed exudate, debris and microorganism colonies. Lumens lined by endothelial cells was detected in both smaller and larger size. In some aforementioned lumens, erythrocytes was seen sparsely and surrounded with inflammatory cells. Newly formed capillaries were also reported. Lesion was diagnosed as ulcerated capillary hemangioma. Periodic follow up was done first and sixth month after the surgery (Figure 6). Recurrence was not reported.

DISCUSSION

Hemangiomas are vascular tumors that divides into two categories which are capillary and cavernous hemangiomas. Although capillary hemangiomas are mostly encountered in head and neck region, they are scarcely reported in oral cavity. Capillary hemangioma mostly was seen at hard palate, attached gingiva and rarely reported in interdental papilla. On the other hand, capillary hemangioma localized at alveolar crest in our case. Differential diagnosis of hemangioma should be made with pyogenic granuloma, chronic gingival inflammatory hyperplasia, epulis, varicosel and squamous cell carcinoma (Desai et al., 2015).

Provisional diagnosis of lesion was hemangioma due to positive diascopy procedure. Nature of the lesion helps clinician to predict the incidence of complications such as bleeding. Complications can be managed with easily and predictably when the preoperative preparation was made thoroughly. Magnetic resonance imaging (MRI), ultrasonography, Doppler angiography are preoperative radiographic examinations when the provisional diagnosis was hemangioma (Miyazaki et al., 2009). Vascular lesions can be managed with low morbidity with definitive diagnosis. In our case, oral capillary hemangioma was treated with electrocautery. Patient was followed up regularly. Recurrence was not reported in follow up periods. Laser and cryotherapy were also successfully applied for small vascular lesions (Vesnaver and Dovsak, 2006). Cost of laser limited its' clinical application (Bradley, 1997). In inexperienced hands, cryotherapy can cause tissue damage. When the surgery contraindicated, injecting sclerosing agents into lesion, corticosteroids, electrocautery, cryotherapy, radiation therapy were treatment of choice (Varol et al., 2009). Recently, clinical application of propranolol showed promising results (Leaute-Labreze et al., 2008).

Hemangiomas mostly regress as the patient ages. If the hemangiomas reach the enormous size, aesthetic concern can occur and intervention can be planned. Dilsiz et al. (2009) reported that hemangiomas can cause facial asymmetry, ulceration, tooth mobility and bleeding. In our case, lesion was bleeding and growing. It was also decreasing quality of patient's life due to painless slow-growing mass, episodes of bleeding and speak interference. Thus, treatment of the hemangioma was performed.

Chang et al. (2018) reported recurrence of hemangiomas after treatment. Therefore, patient should be followed up regularly. Recurrence was not reported in presented case during the follow up periods. Biopsy should be taken for definitive diagnosis.

Conclusion

Although hemangiomas are mostly asymptomatic, localization and size of hemangiomas may dictate treatment. Treatment could result in intraoperative and postoperative complications such as bleeding.

Patient should be recalled with regular basis due to reported recurrence episodes of hemangiomas.

Conflict of Interest

Authors declare no conflict of interest. Written consent was obtained from patient for the surgical procedure and publication of recorded materials.

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