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Case Report

HEMANGIOPERICYTOMA IN A PREGNANT WOMAN - A CASE REPORT

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ABSTRACT

The term hemangiopericytoma (HPC) was introduced by Stout and Murray in 1942, for tumors located in the retroperitoneum, buttocks and thighs. It is a rare vascular tumor arising from mesenchymal cells with pericytic differentiation. Only 15 - 30% of all hemangiopericytomas occur in the head and neck.

We report a case of hemangiopericytoma occurring in the gingiva of a young pregnant female on the right lower gingival region mimicking pyogenic granuloma.

Keywords: Hemangiopericytoma, Gingiva, Pregnancy, Pyogenic Granuloma.

Key Message: Hemangiopericytoma can mimic pyogenic granuloma clinically.

INTRODUCTION

The term Hemangiopericytoma (HPC) was introduced by Stout and Murray in 1942, for tumors located in the retroperitoneum, buttocks and thighs. They proposed HPC to be originated from pericytices (modified smooth muscle cells located around the blood vessels) described by Zimmermann in 1923[1,2].

HPC have been reported at various head and neck sites, including the meninges, thyroid, larynx, nasal cavity, paranasal sinuses, orbit, nasopharynx and salivary glands[3,4].

We report a case of HPC occurring in the gingiva of a young pregnant female on the right lower gingival region mimicking pyogenic granuloma.

CASE REPORT

A twenty year old pregnant female reported with a growth over her right lower gum for the past four months. The growth was gradual in onset and painless. Presently the growth caused difficulty in chewing, prompted her to inform her gynecologist during her routine visit, who referred her to a oral and maxillofacial surgeon for opinion and management. The Patient was in her third trimester of pregnancy.

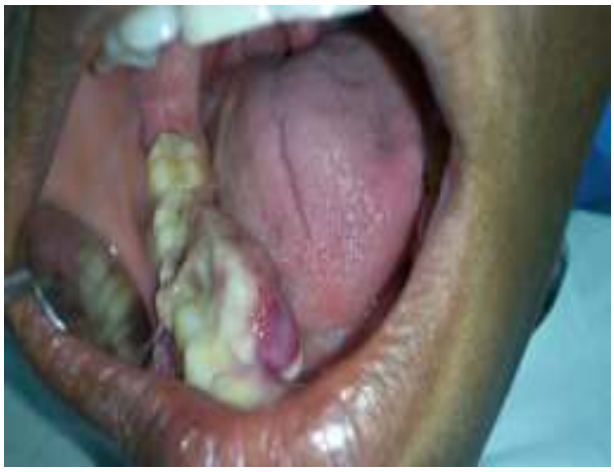

Figure 1: Preoperative photograph of growth

On examination, a 3x2 centimeter sessile growth was noted occupying the edentulous space of 46, and extending into the lingual aspect of 45 to 47 region. Surface of the growth was rough, erythematus with presence of slough.

On palpation growth was firm, non tender, non fluctuant and non pulsatile. No regional lymphadenopathy noted.

Based on history and clinical findings growth was provisionally diagnosed to be a pyogenic granuloma (pregnancy tumor) and excisonal biopsy was planned under local anesthesia after obtaining fitness from her gynecologist.

Excision biopsy was performed in operation theatre after undertaking necessary surgical precautions with standby gynecologist. Intra-operative bleeding was noted and the bleeding spots cauterized and thorough curettage was done. Pressure pack was placed after ensuring proper hemostasis. The sample was then sent for histopathological diagnosis.

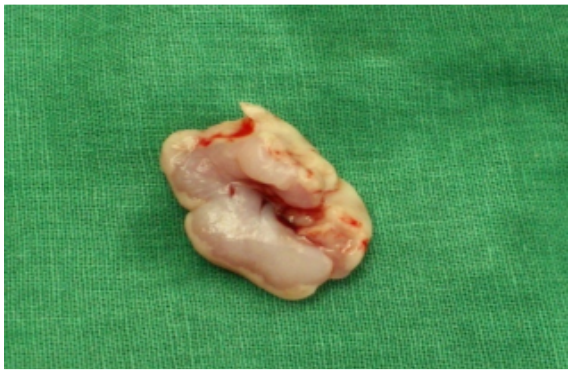

Figure 2: The Excised Specimen

Histologically specimen showed proliferative blood vessel with stag horn lumen lined by endothelial cells and surrounded by spindle cells suggestive of hemangiopericytoma. There was no increase in mitosis or pleomorphism.

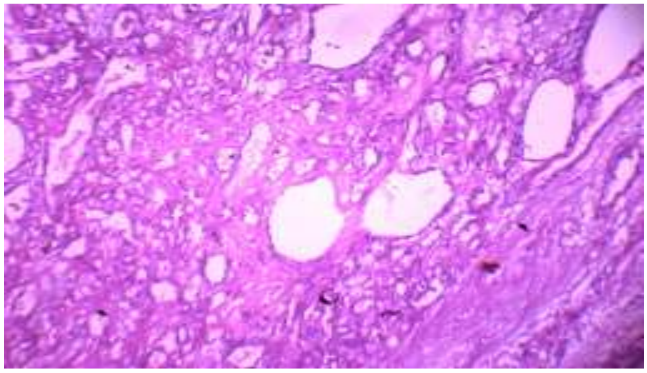

Figure 3: The Histopathological Slide.

Figure 4: Healed area after one Week Post –Operatively

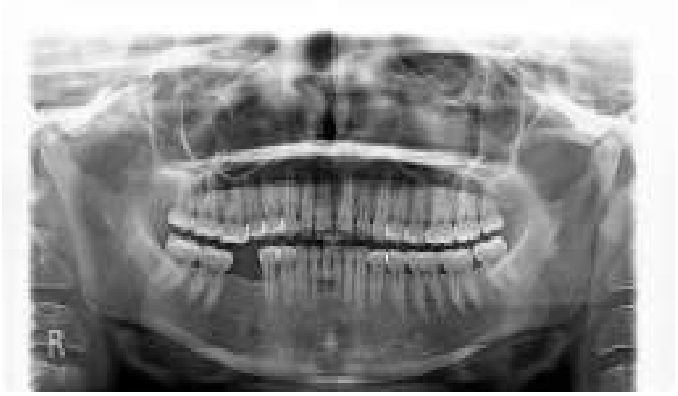

Figure 5: Healing after 19 months on the orthopantamogram

DISCUSSION

HPC is a rare slowly growing mesenchymal tumor that occurs as a localized mass, its diameter can range from one to twenty centimeter and is usually asymptomatic. Based on the medical history and clinical findings of some patients, various etiological factors have been suggested (hypertension, hormonal or metabolic imbalance and trauma) but the exact etiology of HPC is still unknown[4-10].

Histologically HPC is classified as low-grade, intermediate grade, and high-grade based on mitoses, cellularity and cellular pleomorphism. 12%- 56% of HPC have been reported with involvement of lymph node, bone and with pulmonary and hepatic metastasis. Metastasis usually occur within five year of initial diagnosis and are rare after ten years[11-14].

Recurrence has been reported in 20% to 57% of HPC cases approximately 17 months after the initial treatment. Often the tumor seems to be encapsulated clinically, although tumor cell infiltration of the capsule wall is detected histologically[15].

According to the literature, malignancy of the HPC tumors is primarily supported by a number of mitoses >4 per ten high - power fields, and by aproliferation index ≥10%. Presence of hemorrhagic necrosis, hypercellularity, and low proliferation index are typical of borderline forms of HPC[15].

In the differential diagnosis one should take into consideration the glomus tumor, hemangioendothelioma, vascular fibrosarcoma and leiomyosarcoma[3-4].

CONCLUSION

HPC is a very rare slow-growing vascular tumor, with variable malignant potential, whose biological behavior is difficult to predict. Treatment of choice is wide surgical resection. Adjuvant radiotherapy and chemotherapy can cause tumor regression and in particular, postoperative radiation therapy has been recommended in cases of incomplete surgical removal. Long-term follow up is necessary even after radical resection because recurrence or metastasis may be delayed by many years.

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