

# Vascular Lesions of the Maxillofacial Region: A Case Report and Review of the Literature

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## Background

Many attempts have been made to better characterize behaviors and histopathologic characteristics of vascular lesions to the head and neck region (4). The first widely accepted anatomicopathologic classification of vascular lesions was developed by Virchow and Wegener (5, 6). Utilizing the microscopic appearance of individual lesions, they separated all vascular tumors into two broad categories, namely angiomas and lymphangiomas. Within these divisions, the lesions were further sub-classified as being either “simplex”, “cavernosum”, or “racemosum” (7).



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## Abstract

There is frequently lack of understanding and apprehension among dental practitioners treating patients with vascular lesions of the oral and maxillofacial region. Arteriovenous malformations are rare lesions which can easily be misdiagnosed yet produce the very dramatic clinical presentation of severe life threatening oral bleeding (1, 2, 3). Much of this apprehension likely stems from a lack of understanding of these anomalies, including lesion behavior/ characteristics, clinical work-up, and treatment paradigms. A comprehensive, in depth review of the full spectrum of vascular lesions of the maxillofacial complex is beyond the scope of this review. The purpose of this article is to provide a comprehensive review of the diagnosis, treatment, and risks associated with these complex vascular anomalies and provide a case report.

In 1982, Mulliken and Glowacki published a landmark article proposing characterization of vascular defects based on biologic and pathologic differences. Their work differentiated between two major categories of vascular lesions: hemangiomas and vascular malformations. Different categories, names, and treatment options have been advocated over the years with multiple outcomes.

They can occur in various areas throughout the body, with 60 percent being located in the head and neck. The true mechanism of pathogenesis of vascular anomalies is still unclear. Embolization and surgery is often combined for extended cases to improve their facial contour and oral function.

We present the case of a 29-year-old female that is 36 weeks pregnant and presented to University Hospital after having significant bleeding from her oral cavity. She was found to have a gingival lesion associated with a radiolucency in the right posterior mandible. During her stay she had an episode of acute bleeding that required an emergent exploration, embolization, and resection secondary to an Arteriovenous Malformation associated with the Inferior Alveolar Artery. We will discuss the presentation, treatment provided, and outcome of this patient. We will also cover the diverse group of congenital vascular malformations, and their pathologic, clinical, and radiologic diagnosis and management.

**KEY WORDS:** Vascular malformations, vascular anomalies, arteriovenous malformations, mandibular tumors, intraoral bleeding, mandibular resection, BMP2 graft, inferior alveolar artery embolization

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# Oral Health Care for the Pregnant Patient

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## Introduction

Most pregnant patients are generally healthy and need not be denied dental treatment solely because they are pregnant. However, even a healthy pregnancy causes major changes in maternal anatomy, physiology, and metabolism. These can include changes in the cardiovascular, respiratory, and gastrointestinal systems, as well as changes in the oral cavity and increased susceptibility to oral infection. Although these adaptations of maternal organ systems are normal, they do necessitate consideration and adjustments in treatment by any dentist who is providing oral health care and prescribing medications for the patient. This article discusses the various changes that occur during normal pregnancy and suggests modifications in dental management that should be considered.



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## Abstract

Pregnancy is a unique time in a woman's life, accompanied by a variety of physiologic, anatomic, and hormonal changes that can affect how oral health care is provided. However, these patients are not medically compromised and should not be denied dental treatment simply because they are pregnant. This article discusses the normal changes associated with pregnancy, general considerations in the care of pregnant patients, and possible dental complications of pregnancy and their management.

**KEY WORDS:**  
pregnancy, oral  
healthcare

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