toxoplasmosis presents a special problem in immunosuppressed host, wherein reactivation of a latent toxoplasmosis may be developed. Therefore, patients with HBV should be screened for *Toxoplasma* and parasitologic surveys of HBV patients should be periodically performed to prevent the possible dissemination of toxoplasmosis.

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From the Department of Gastroenterology (Ustun, Ersoz), Ege University, Department of Parasitology (Aksoy), Dokuz Eylul University, Izmir, Department of Parasitology (Yazar), Department of Biochemistry (Kilic), Erciyes University, Kayseri, Turkey. Address correspondence and reprint requests to Dr. Suleyman Yazar, Department of Parasitology, Medical Faculty, Erciyes University, Kayseri 38039, Turkey. Tel. +90 (352) 4374937. Fax. +90 (352) 4375285. E-mail: syazar@erciyes.edu.tr

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Hypovolemic cardiac arrest after dental extraction. *An unexpected high-flow maxillar arteriovenous malformation*

Fatma Saricaoglu, *MD,* ***Elif Basgül,*** *MD,* ***Aydın Erden,*** *MD,* ***Ülkü Aypar,*** *MD.*

Maxillar arteriovenous malformations (AVMs) of the maxillofacial region sometimes give rise to dental emergencies and may cause disfigurement, morbidity and even death. The most common clinical presentation is expansion of the buccal cortex, gingival bleeding from around the necks of mobile teeth or severe hemorrhage after dental extraction, gingival biopsy, or eruption of a tooth.[1,2] The vascular and hemodynamic nature of the lesion is important in determining the treatment and providing a favorable prognosis. Preoperative embolization and intervention by different therapeutic surgical modalities became the treatment of choice in the majority of cases.[3] This report describes a case of life threatening post extraction hemorrhage occurring in hypovolemic shock.

A 6-year-old girl was referred to the emergency department for assessment of post-extraction hemorrhage. On the day of presentation, she underwent extraction of the third molar tooth at a hospitals' dental office under local anesthesia. After the extraction, severe hemorrhage began and the dentist made a digital pressure at the site of the hemorrhage. However, the patient and her parents were agitated as the hemorrhage was constant. Hypotensive shock then occurred. Pulse and blood pressure (BP) was not achieved. A 24 G cannula was placed and entubated with 5 mg midazolam. Hemoglobin (Hb) count was 4 g/dl and so blood transfusion (400 cc) was administered. However, the tamponade was not able to stop the hemorrhage so she was referred to Hacettepe University Hospital emergency department. On examination, vital signs indicated hypotension (BP 60-40 mm Hg) and tachycardia (heart rate 140 beats/min), a mild hypoxia was noted despite the spontaneous breathing (oxygen saturation was 94% on room air). Neurologic examination was not carried out due to midazolam. Laboratory tests revealed a Hb count of 9.2 g dl^{-1} and hematocrit of 26%. Arterial blood analyses: hydrogen ion concentration 7.2, partial pressure of carbon dioxide 43.5, base excess -7.9 and laboratory data analyses were within normal limits. Anesthesia and maxillofacial surgery department examined the patient and decided to make an angiography. A cerebral and facial angiography was carried out under general anesthesia and revealed high flow arteriovenous malformation fed by right maxillary artery. Embolization, which consist in occluding the vessels contributing to the lesion (right maxillary artery) with polyvinyl alcohol particles (1 vial). An embolization of the right maxillary artery and arteriovenous malformation was performed. A complete occlusion of the malformation and cessation of bleeding were achieved after the embolization. On arrival in the anesthesia reanimation unit, blood results revealed a Hb of 11.7 g.dl^{-1} and the trachea was extubated uneventfully on the sixth hour after the embolization. Twelve hours later, surgery was performed by curettage of the collapsed vascular anomaly at the maxillary sinus and maxillary bone. There was no excessive bleeding (60 cc). She was discharged in good condition 3 days later with Hb

level of 12.4 g dl^{-1} on the day of discharge. The pathology report on the specimen showed numerous anomalous vessels with mild inflammatory reaction.

Arteriovenous malformations of the dental arcades represent some of the most challenging lesions in the maxillofacial region. Intraosseous vascular malformations on the other hand, are caused by a disturbance in the late stages of angiogenesis (truncal stage) and result in the persistence of arteriovenous origin that are often referred to as "high-flow vascular malformations" and are often the cause of massive, sometimes fatal hemorrhages.[1] Gingival bleeding seems to be a symptom common to most documented cases. Many instances of massive hemorrhage, even exsanguinations, have been documented following the extraction of teeth associated with these AVMs. Extraorally, the face is often asymmetrical, with an accompanying bluish discoloration. There was none of these symptoms in our patient. Embolization, which consist of occluding vessels contributing to the lesion, has been used for sometime. Several materials, usually inserted by means of femoral catheterization, have been used: polyvinyl alcohol particles, muscle, gel foam, cyanoacrylate, metal coils, and collagen.[2] Some authors present this technique as a preliminary and indispensable adjunct to excision and reconstructive surgery, while others use it as the sole, definitive approach.[3] Embolization, combined with surgical treatment, is still the most conventional modern approach. This procedure controls the acute hemorrhagic phase, but does not eliminate the risk of recurrence, owing to the appearance of a collateral circulation. It does, however, reduce the blood flow, allowing excision surgery to be performed within anywhere from 48 hours to 2 weeks.[4]

Preoperative embolization of our case was successful as no significant blood loss occurred during surgery. Most of the reports deal with mandibular AVMs and it could be suggested from these date that maxillary lesions are more rare.[5]

Hemorrhage is the most devastating complication that can be expected in AVMs and represents even if minor, an indication for treatment in emergency. Even if the patients have never bled up to the time of the diagnosis, they should be treated expeditiously, as hemorrhage can be a potentially fatal complication. In our case, there was no history of bleeding and swelling or pain like the symptoms of AVMs.

Tooth extraction should not be considered at that time, or any other treatment on the gum, as it will just exacerbate the bleeding which may become uncontrollable. If this is the case, the patient should rapidly close his mouth and clench the teeth tightly so that the dental contact can produce homeostasis. He should then be rapidly transferred to a neuroradiology unit where endovascular therapy will be undertaken as an emergency. Surgery seems contraindicated in this disease, at least in the first instance. It used to be performed in hemorrhagic conditions, with great technical difficulties, which most often resulted in extensive or mutilating interventions. It should, for these reasons, not be considered in these acute situations that be managed by embolization. The approach we propose, in our opinion, the best way to treat these lesions in this case as the extraction was carried out and the hemorrhage was life threatening. Hypovolemic shock occurred and her trachea had to be entubated to save the airway.

Dental extraction causes a life-threatening hemorrhage if there is AVMs and emergency management with transfemoral embolization is a simple and safe technique before surgery.

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From the Anesthesiology and Reanimation Department, Hacettepe University, Ankara, Turkey. Address correspondence and reprint requests to Dr. Fatma Saricaoglu, Department of Anesthesiology and Reanimation, Faculty of Medicine, Hacettepe University, Ankara 06100, Turkey. Tel. +90 (312) 305 1264/1250. Fax. +90 (312) 3109600. E-mail: fatmasaricao@yahoo.com

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Health insurance. *A need of time*

Shabih Manzar, *MD, FAAP.*

In an ideal world, health care should be provided to all irrespective of their economic status. But in the present era of high-tech management strategies, the cost of health care has gone up and the level of care provided correlates with the social class of the patient. This becomes more valid and true in situations utilizing the intensive care facility of the