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## Partner Violence During Pregnancy: The Role of an Oral and Maxillofacial Surgeon



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Behavior involving physical violence or abuse by individuals in a relationship is universally unacceptable. Partner violence, an infringement of an individual's rights and safety, compromises the physical and mental health of the survivor. The repercussions are exacerbated during pregnancy as the consequences also affect fetal outcomes. As state governments mandate self-isolation because of coronavirus disease 2019, cases of partner violence have increased.<sup>1</sup> Partner violence is one of the predominant causes of trauma in pregnant women and is reported in 1-57% of pregnancies.<sup>2</sup> This range reflects the disparity in patient self-reporting of partner violence and the true incidence may be undercalculated. It may first occur or increase in frequency during the course of a pregnancy.<sup>3</sup> Universal screening efforts of traumatic injuries in emergency departments for partner violence have been recommended to maximize identification of survivors.<sup>1</sup> As experts on the maxillofacial region, oral and maxillofacial surgeons (OMSs) can play a prominent role in ensuring adequate screening and identification of partner violence in pregnant patients.

The maxillofacial region is the most common anatomic location associated with trauma resulting from partner violence.<sup>4</sup> In a study of patients experiencing domestic violence, most injuries were reported as nasal fractures. Blunt trauma was a common mode

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§Assistant Professor, Section Chief, Penn Presbyterian Hospital, Section Chief, Philadelphia Veteran's Affairs Medical Center, Department of Oral and Maxillofacial Surgery and Pharmacology, School of Dental Medicine, University of Pennsylvania, Philadelphia, PA. of injury, primarily via fist. As a result, another common site of injury is the left zygoma, indicating the dominant handedness of the perpetrator. These patterns of injury were similar in other studies conducted on this population and may serve as indicators.<sup>4</sup> In the field of oral and maxillofacial surgery, relevant studies on this patient population are outdated or lacking. Most survivors do not disclose violence because of fear and concerns of additional ramifications. However, as such injuries affect specific maxillofacial regions, OMSs are most qualified to screen for partner violence that is unreported by pregnant women. Gravid patients presenting to the emergency room with midface trauma and nondescript etiologies should raise immediate questions pertaining to partner violence.

A misconception limiting the identification of partner violence in pregnant patients is that some physicians and OMSs may not consider such a responsibility as part of their roles as healthcare providers. OMSs may feel uncomfortable asking intimate questions. Some may be unsure of how to handle such cases. The roles of the OMSs in maxillofacial trauma in pregnant women include screening for partner violence and if necessary, identifying survivors, referring to appropriate entities, and treating the injury. Acceptance of such roles will protect pregnant women and their children and improve maternal and fetal outcomes.

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If an OMS suspects a case of partner violence, one should proceed carefully and methodically. An empathetic, nonjudgmental tone and body language are required, and specific questions should be asked when discussing the etiology of the injury. To provide context, an OMS may lead an inquiry with a generalization, such as the prevalence of partner violence and trauma in pregnant women. If the patient acknowledges violence, the OMS may discuss if aggression had been directed toward the child-bearing area. Often times, survivors may deny such questions. If the OMS suspects that the injury is not consistent with the patient's etiology, this should be made apparent in an approachable manner to foster conversation. Confidentiality is critical in ensuring the safety of the patient. Trust in the physician-patient relationship is a necessity, and any subsequent steps required to protect a patient's well-being should be explained. However, when partner violence pertains to pregnant women, its disclosure should require a referral irrespective of the consent of the survivor.<sup>1</sup> OMSs should not provide advice or comments pertaining to their patient's relationship, as such a recommendation may place the patient in imminent danger. Organizations to disclose suspected or confirmed partner violence cases are available in Table 1. States mandate that partner violence be reported to state authorities, which is an open discussion the OMS must have with the patient. Hospitalbased OMSs likely have protocols that exist regarding referral of partner violence cases and should be reviewed.

With the onset of the coronavirus disease 2019 pandemic, telehealth consultations have been encouraged in regard to patient safety. As partner violence has increased during this time,<sup>1</sup> the importance of screening in pregnant patients reporting with maxillofacial trauma cannot be understated. OMSs should triage such situations as they would in the clinic or emergency department. However, during the virtual consultation, the perpetrator may be present and disclosure of violence will be challenging. An OMS may ask the patient to respond with nondescript responses. If it is determined that patients and their child are in danger, an OMS should take the necessary action in referring to the appropriate authorities.

While the safety of the pregnant survivor is the ultimate goal of the OMS, patients who suffer soft or hard tissue maxillofacial injuries will require treatment. In this patient population, interdisciplinary collaboration with OMS, obstetriciangynecologists, and anesthesiology is critical to establish a management plan to optimize both maternal and fetal outcomes. The primary management goal is to assess and stabilize the condition

Agency	Contact
National Domestic Violence Hotline	https://www.thehotline.org/1- 800-799-7233
State-by-state basis	Search for domestic violence agencies based on your state of practice

Table 1. PARTNER VIOLENCE REFERRAL AGENCIES

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of the mother, as fetal outcomes correlate with maternal resuscitation. Once stabilized, an appropriate treatment should be planned based on the extent of the injury. It is published in the literature that the treatment of maxillofacial trauma in pregnant patients presents minimal risk. Facial imaging, such as cone beam computed tomography, magnetic resnonance imaging, and conventional radiographs with shielding have negligible effects on the fetus and are proven to be safe. In the context of maxillofacial trauma, the use of general anesthesia also presents the patient and fetus with minimal risk.<sup>5</sup> Ultrasound should be used by the obstetrician-gynecologists to assess fetal biometry and placental evaluation. During surgery, the gravid patient should be maintained in the left lateral decubitus position to avoid supine hypotensive syndrome. Depending on gestational age and extent of surgical treatment, fetal monitoring during the procedure may be advised by obstetriciangynecologists. Intermaxillary fixation should be avoided, and fractures should be treated with rigid fixation. Such a modality allows faster rehabilitation and restoration of nutritional intake. If intermaxillary fixation is indicated, parenteral nutrition supplementation is recommended.<sup>5</sup> In survivors who are already exhibiting heightened levels of anxiety with regards to the well-being of their child, it may be required of the OMS to educate and console patients pertaining to the safety of their selected treatment. Depending on gestational age, fetal monitoring should occur for at least 2-6 hours post-trauma<sup>2</sup> depending on patient's obstetric complaints and anatomic site of trauma.

As experts on the maxillofacial region, OMSs are in an important position to implement universal screening and identification of partner violence in pregnant women. All OMSs must acknowledge and understand the capabilities and limitations of their role in protecting pregnant women from partner violence. As providers, it is necessary to be understanding of such patients; women are bearing their children and are in fear of further repercussions. It is paramount to ensure their safety in the present and the future, for both themselves and their child's well-being.

## References

- 1. Coulthard P, Hutchinson I, Bell JA, et al: COVID-19, domestic violence and abuse, and Urgent Dental and oral and maxillofacial surgery Care. Br Dent J 228:923, 2020
- Mendez-Figueroa H, Dahlke JD, Vrees RA, Rouse DJ: Trauma in pregnancy: An Updated Systematic Review. Am J Obstet Gynecol 209:1, 2013
- **3.** Daley D, McCauley M, van den Broek N: Interventions for women who Report domestic violence during and after pregnancy in Low- and Middle-Income Countries: A Systematic literature Review. BMC Pregnancy and Childbirth 20:141, 2020
- Le BT, Dierks EJ, Ueeck BA, et al: Maxillofacial injuries associated with domestic violence. J Oral Maxillofacial Surg 59:1277, 2001
- Turner T, Aziz SR: Management of the pregnant oral and maxillofacial surgery patient. J Oral Maxillofacial Surg 60:1479, 2002