

High incidence of strangulation found among patients who experienced intimate partner violence

December 12 2023



Credit: Pixabay/CC0 Public Domain

A new study underscores the alarming occurrence of intimate partner violence (IPV) as the cause of assault-related injuries resulting in anoxia, or the complete lack of oxygen flow to tissues and organs. Led by investigators from Brigham and Women's Hospital, a founding member of the Mass General Brigham health care system, the study found that IPV accounted for 40 percent of assault-related anoxia occurrences and 30 percent of neck contusions (bruising).

Their results are published in [*Injury Prevention*](#).

"Underreporting is a serious issue when it comes to strangulation. I rarely see strangulation indicated in [medical histories](#), and after deciding to conduct this study on the subject, I was surprised to see how high the numbers were in connection to intimate partner violence," said lead author Bharti Khurana, MD, MBA, an emergency radiologist in the Department of Radiology at the Brigham.

"Our objective with this paper is to raise awareness of strangulation among not only patients and victims but also medical providers."

Strangulation can inflict physical and psychological consequences on a victim, who is then at greater risk of homicide. Oftentimes, IPV aggression stems from a current or former intimate partner. Documenting instances of strangulation is important for victims who decide to go to court, as medical records can provide legal evidence and judicial support.

However, less than 50 percent of non-fatal strangulations show physical evidence on the neck, and many patients may worry about making a

report, as they may be dependent on their partners and afraid of consequences like their spouse being arrested. Additionally, even in instances when a patient does report an incident, medical providers may not properly note strangulation in the medical report.

To search for a connection between IPV and emergency department injuries, the researchers analyzed more than 24 million assault-related injuries from 2005 to 2019 in the National Electronic Injury Surveillance System (NEISS).

The database comprised numerous hospitals across different states in the U.S. While the [national database](#) did not include specific coding for strangulation, the researchers were able to utilize proxies like assault-related injuries leading to anoxia and neck injuries to make observations on the incidences of these types of injuries in domestic violence cases.

Researchers found that about 11.6 percent of assault-related injuries resulted from intimate partner violence. Of the 22,764 assault-related anoxia cases, IPV comprised about 40.4 percent. For neck injuries, IPV accounted for about 21.4 percent and 31.9 percent of neck contusions.

Khurana and colleagues are now exploring how [artificial intelligence](#) (AI) could help match patients with resources and services that can assist those experiencing intimate partner violence.

Mass General Brigham, as one of the nation's top integrated academic health systems and largest innovation enterprises, is leading the way in conducting rigorous research on new and emerging technologies to inform the responsible incorporation of AI into care delivery, workforce support, and administrative processes.

"The future of medicine includes AI, and at the Trauma Imaging Research and Innovation Center, we are developing an AI tool called

[Automated Clinical Decision Support Tool for Intimate Partner Violence Risk and Severity Prediction \(AIRS\)](#), which will allow us to analyze patient data and identify potential instances of [intimate partner violence](#)," said Khurana. "We hope that this tool can complement screening for IPV and optimize the care and procedures needed by this demographic of patients."

The database used for this study did have limitations, as many patient cases lacked specific details about the injuries. Furthermore, the data collected by NEISS only allowed for a single diagnosis, thus not taking into account situations with multiple diagnoses.

Despite these constraints, the study was effective in showing that IPV is the root cause of a substantial portion of anoxia and neck injuries. As a result, the study team recommends comprehensive screening for [strangulation](#) in every IPV patient, as well as screening for IPV in patients who present with neck injuries.

More information: Bharti Khurana et al, Assault-related anoxia and neck injuries in US emergency departments, *Injury Prevention* (2023). [DOI: 10.1136/ip-2023-045107](https://doi.org/10.1136/ip-2023-045107)

Provided by Brigham and Women's Hospital

Citation: High incidence of strangulation found among patients who experienced intimate partner violence (2023, December 12) retrieved 28 April 2024 from <https://medicalxpress.com/news/2023-12-high-incidence-strangulation-patients-experienced.html>

<p>This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.</p>
--