D46 Strangulation in Sexual Assault

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After attending this presentation, attendees will be able to identify the different mechanisms of strangulation and have an understanding of the issue of power and control in sexual assault as well as the need for complete history documentation in the absence of physical findings. This presentation will impact the forensic community by raising the awareness of the need for meticulous examination and documentation of the sexual assault victim who has been strangled.

Strangulation as a mechanism of assault is often poorly understood by both investigators and victims in a trauma situation. The victim may be unable to completely describe what form the assault took, and investigators are often reluctant to pursue a mechanism in the absence of physical findings. The terms "strangulation" and "choking" have been used interchangeably in the literature which leads to confusion when attempting to differentiate the symptoms the victim is describing and the manner of assault.

Strangulation is frequently used as a means of control in sexual assault. The neck is a very vulnerable area in an attack, as the diameter is fairly small and the airway is fairly unprotected. The only weapon usually necessary is one the attacker has with him: hands. Although a ligature or other tool can also be used, the hand and forearm are the most commonly found to be used in strangulation. Symptoms described by victims after an attack include breathing and swallowing changes, voice changes such as hoarseness, a perceived feeling of swelling in the outer neck or internal structures, restlessness or combativeness, and incontinence of urine or stool. If physical injuries are present they may include bruising of the neck, scratches or abrasions, redness in the eyes from subconjunctival hemorrhage or discrete petechiae, and ligature marks if one was used. However, many victims have no visible injuries and some are too minor to photograph. Physiologic theories on how injuries produce symptoms include venous obstruction leading to cerebral stagnation and hypoxia; vagal collapse caused by carotid pressure as well as arterial spasm due to carotid pressure. The location on the neck in which the attacker applies force, how much force, and for how much time, as well as the surface area to which it is applied are all variables involved in producing symptoms. The amount of time that has passed between incident and injury documentation, be it very quickly or moderately long, can make the difference on finding "visible" injuries.

The authors will present two case studies of strangulation in sexual assault showing minimal visible injury to the neck with resultant symptoms. The need to ask the victim about injury to the neck will be emphasized as many forensic examiners fail to ask, examine, or document and most victims do not volunteer this information unless questioned.

Strangulation, Sexual Assault, Injury

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