

H34 Postmortem Changes of Female External Genitalia and Their Importance in Suspected Sexual Abuse

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Learning Overview: The goal of this presentation is to inform attendees that lividity was not found in female genitals in postmortem examination and any discoloration in this area should be well investigated.

Impact on the Forensic Science Community: This presentation will impact the forensic science community by informing attendees that lividity of female genitals was not found in postmortem examination and that before putrefaction sets in, any discoloration should be well investigated to rule out sexual abuse.

Examination of the female external genitalia to assess for sexual abuse is performed in living individuals, and the interpretation of the findings is based on evidence-based studies. However, in the deceased, no such studies are available, and postmortem changes could present as suspicious findings that can be mistaken for trauma. Patches of discoloration in the hymen were reported previously in one case as hypostasis (i.e., livor and lividity), and based on this finding, it was listed as a finding that is not associated with trauma.^{1,2}

A retrospective study was conducted at the Center of Forensic and Legal Medicine in Dammam, Saudi Arabia, over a four-year period. The study included 30 deceased women in whom photographic documentation of their external genitalia was assessed for postmortem changes.

The postmortem interval ranged from less than 24 hours to more than 100 days, and the ages of these deceased women were in the 20- to 40-year-old age group. Death was due to pressure over the neck in 35% of the cases, blunt force trauma in 19%, and sharp force injury in 11%. Putrefaction was absent in 87% of cases, mild in 3%, and advanced in 10%. Hypostasis was on the back of the body in the majority of cases (77%). In cases where the hymen, vagina, and/or fossa navicularis were clearly visible, none of these areas showed any hypostatic discoloration. A comparison between antemortem and postmortem appearance of the hymen in one case clearly showed the absence of hypostatic changes in the hymen and besides slight paleness (explained by loss of actively moving blood), the hymen looked exactly like that in the antemortem picture with no distinct discolorations. In conclusion, before putrefaction sets in, any discoloration of the hymen and the area around it should not be attributed to hypostasis. Further study of such an area should be pursued to establish the etiology of the discoloration, and this could include biopsy and histological evaluation of the area of concern.

Reference(s):

1. Ambrosetti F., Palazzo E., Gibelli D., Andreola S., Di Giancamillo A., Domeneghini C., et al. The risk of misinterpreting genital signs of sexual abuse in cadavers: A case report. *Int J Legal Med* 2013;127(5):907–10.
2. Adams J.A. Understanding medical findings in child sexual abuse: An update for 2018. *Acad Forensic Pathol* 2018;8(4):924–37.

Lividity, Hymen, Sexual Abuse