

E1 The Challenge of Diagnosing Sexual Abuse in Children: A Matter for Experts

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After attending this presentation, attendees will understand the normal prepubertal female genital anatomy in the absence of abuse, in order to distinguish congenital abnormalities and findings due to sexual abuse.

This presentation will impact the forensic science community by demonstrating the importance of a careful examination of the ano-genital area of children in cases of child abuse in order to avoid communicating wrong or misleading information to a prosecutor.

Female genital anatomy may have different features due to age and hormonal influence. Some authors describe the normal anatomy of the prepubertal population to identify accurate data that can be used for comparison purposes in cases of suspected child abuse.^{1,2} Most studies focus on the appearance of hymen. According to Adams, "... the defect in the posterior (inferior) half of the hymen wider than a transection with an absence of hymenal tissue extending to the base of the hymen" is a definitive sign of trauma or sexual contact.³

The normal anatomy of prepubertal girls can also vary because of congenital pathologies that involve the urogenital organs. For medical practitioners, it would be useful to recognize these congenital abnormalities in order to distinguish them from the normal and to correctly identify definitive signs of abuse.

This study reports two cases of suspected sexual child abuse. In the first, the diagnosis of abuse was confirmed by the comparison between the findings and the normal anatomy; in the second, thanks to a careful medical examination and the use of imaging, the initial suspicion of abuse was converted to a diagnosis of congenital abnormalities.

Case 1: A 5-year-old girl was hospitalized because of seizure attacks and no response to stimuli. The mother told the doctors that in the past year, the girl had suffered from abdominal pain, genital hyperemia, cystitis, and vaginal hemorrhage. The girl began to talk about strange touches perpetrated by her uncles. The girl was examined in the local ambulatory care facility specializing in multidisciplinary evaluation (pediatrician, medical examiner, and psychologist) of suspected child abuse. The staff identified a certain sign of trauma or sexual contact: *a defect in the posterior half of the hymen wider than a transection with an absence of hymenal tissue extending to the base of the hymen*. The association of this evidence with the stories related by the girl and the clinical findings was fundamental to diagnosing the abuse.

Case 2: Due to vaginal hemorrhage and self-masturbation, a medical examination was conducted on a 9-year-old girl. No hymenal tissue was noted during the examination. Sexual abuse was also suspected because of information from her mother about the father, from whom she was now separated. The mother told the doctor that the father used to sleep with the child every night. The child underwent another multidisciplinary examination (pediatrician, medical examiner, and psychologist) regarding the absence of the hymen, and examining the hood, clitoris, and hypoplasia of the labia minora. The vaginal orifice was clearly visible. The operators diagnosed a congenital pathology. The diagnosis was also confirmed by an ultrasound examination that demonstrated the normality of the urinary tract and the pathological immaturity of the vagina, uterus, and ovaries (the latter were described as two fibrous, ribbon-shaped formations).

These two cases provide strong evidence concerning the modality of how the evaluation of suspected sexual child abuse should be handled. The examiners should be fully educated regarding the genital features that can be observed. In addition, for an accurate diagnosis, utilization of a multidisciplinary analysis based on a combination of pediatrician, medical examiner, and psychologist evaluations is preferred.³

This presentation should serve as a stimulus to heighten the importance of an in-depth knowledge of physiological and pathological aspects of child genital anatomy in order to reach a correct differentiation between normal findings and those associated with abuse or congenital abnormalities.⁴ In fact, according to the literature, the congenital absence of the hymen is an unlikely occurrence unless there are also concomitant major genitourinary anomalies.⁵ Thanks to this information in the second case, considering the absence of the hymen in association with the pathological appearance of the clitoris, labia minora, vagina, uterus, and ovaries, the diagnosis of congenital abnormalities was made.

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