

The Medical Evaluation of Child Sexual Abuse and Assault

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What does the legal system need to know about sexual abuse examinations?

- How experienced is the examiner?
- What is good documentation?
- What constitutes a normal or abnormal exam?
- What can be confused with sexual abuse?
- Was testing done for sexually transmitted infections? What does it mean?

Doctors often over-diagnose sexual abuse on exams

- Lack of experience and training
- Diagnostic expectation
- Changing interpretation of findings to fit the history
- Do not want to miss abuse



Diagnostic accuracy in child sexual abuse medical evaluation: Role of experience, training, and expert case review

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Results

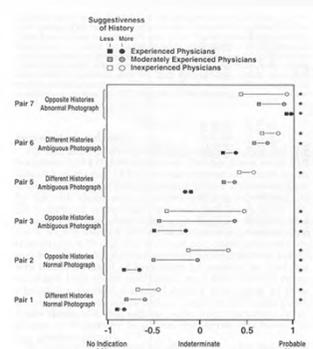
- Training, discipline, and clinical experience were significantly associated with the ability to correctly identify medical findings and apply medical knowledge
- Ongoing practice, expert case review, and keeping up with the medical literature appear to confer additional diagnostic accuracy
- Direct correlation between the number of exams performed monthly and a higher mean score

Conclusions

- 5 or more examinations per month may be required for ongoing competency in interpreting medical and laboratory findings by clinicians other than those specializing in Child Abuse Pediatrics
- Cases of examiners not meeting these criteria should be reviewed by a more experienced specialist medical provider to improve the accuracy of CSA medical evaluations

Paradise JE, Winter MR, Finkel MA, et al. Influence of the history on physicians' interpretations of girls' genital exams. *Pediatrics*. May 1999;103:980-986

- Sets of genital photographs with varying histories sent to 2189 physicians; 604 surveys eligible for interpretation
- Opinion based on history:
 - experienced MD: complete reversal 0-5.6%; 2 cases changed significantly
 - moderate experience: complete reversal 1.6-19.8%; 5 cases changed significantly
 - inexperienced: complete reversal 3.6-27.2%; all cases changed significantly



Conclusion

- Especially for less experienced physicians, diagnostic expectation appears to influence physicians' expectations
- Physicians should be alert to bias and the potentially serious social and legal consequences

Make sure the doctor is qualified

Makoroff, Shapiro CAN 26: 1235

- 46 prepubertal girls had a non-acute genital exam called abnormal by ER docs
- 70% of those were normal when examined by doctor experienced in child abuse
- 13% had other finding, but not abuse
- Only 17% showed clear evidence for abuse

Evaluation of Sexual Assault

- History of injury
 - Patient, caregiver, investigator
- Physical exam
- Forensic evidence collection
- STI testing
- Prophylaxis for STIs and pregnancy

Goals of the medical evaluation

- Diagnosis and treatment
- Identify and document evidence of abuse
- Assess the child's safety
- Obtain the history from the child
- Rule out other explanations
- Assess the health consequences
- Treat any medical problems
- Reassure the child and family
- Refer to mental health counseling if indicated
- Provide expert witness testimony

What do we know from the exam?

- The majority of children with a history of sexual abuse have normal examinations
- Complaint of pain and/or bleeding is important
- Children's injuries heal amazingly well
- There are many findings that mimic abuse
- Special exam techniques are frequently needed

What don't we know from the exam?

- Exactly what caused the injury
- When it occurred once an injury has healed
- How many times it happened
- Who did it

Sexual Abuse Evaluations

Clinic



What do we use to document exams?

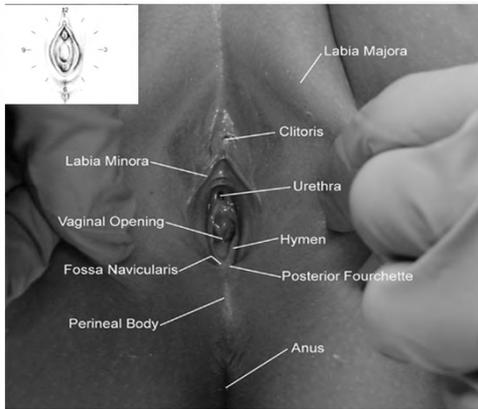


Examination Techniques

Frog Leg Position



Traction in knee chest



Developmental Anatomy

Girls are Born With Hymens

- Hymens were present in 1100 newborn females. Jenny et al, 1987
- Study of over 25,000 newborn females confirmed that congenital absence of the hymen is only a myth. Mor et al, 1988
- Therefore an absent hymen must be considered injury or abuse

Hymenal Morphology (Types of Hymens)

Photo Examples

Variations on normal exams

Conditions mimicking
child sexual abuse

Findings often mistaken for
sexual abuse

Structural/Anatomic Variations

Photo Examples

Skin Conditions
Confused With Sexual Abuse

Photo Examples

Sexually Transmitted Infections

STI confirmed	Implication
Gonorrhea	Diagnostic
Chlamydia	Diagnostic
Syphilis	Diagnostic
HIV	Diagnostic – unless congenital
Trichomonas	Highly suspicious
Genital herpes (HSV)	Warrants Investigation
Genital warts (HPV)	Warrants Investigation

Differential Diagnosis of Vulvovaginitis

- Infectious
 - group A strep, H. flu, respiratory pathogens, Staph aureus, Shigella, Campylobacter, Yersinia, pinworms
 - bacterial vaginosis
 - candidal skin infections (healthy children do not get vaginal “yeast infections”)
 - STIs
- Irritants, i.e. urine, stool, perfumes, soaps
- Foreign bodies

Types of STIs

- Bacterial
 - Gonorrhea
 - Chlamydia
 - Syphilis
- Viral
 - HIV (AIDS)
 - Hep B (Hepatitis)
 - HPV (Warts)
 - HSV (Herpes)
- Other
 - Trichomonas (protozoan)

Accidental Injury

Photo Examples

Examination findings
in sexual assault

Photo Examples

Healed Injury

Healing series

Photo Examples

Diagnostic of sexual contact

Pregnancy

Sperm identified in specimens taken
directly from a child's body



Non-Genital Sites of Injury

Photo Examples

Diagnostic Criteria of Sexual Abuse by Physical Exam

- Examination evidence of acute injury to the hymen or other structures matching the disclosure
- No hymenal tissue on exam
- Semen on acute exam
- Pregnancy in teenagers
- GC, chlamydia, syphilis (all in children past the neonatal period), trichomonas

Why Are Sexual Abuse Exams Usually Normal?

- Genital and anal structures heal rapidly and completely
- Genital and anal structures are elastic, allowing penetration without injury
- Many sexually abusive acts do not involve injury, i.e. fondling, pornography
- Definition of penetration is through the labia, not the hymen

A normal exam neither confirms nor excludes sexual abuse

Sexual abuse most often leaves no injury and absence of injury should not hinder a complete investigation and prosecution

The most frequent reason for a child abuse pediatrician to be subpoenaed to court to testify in a child sexual abuse case is to explain how it is still possible that sexual abuse occurred even in the absence of physical findings.

Summary

- Most sexual abuse exams are normal
- Many variants of normal genital anatomy are misdiagnosed as genital injuries
- Most accidental trauma is external, affecting the labia and perineum
- Penetrating blunt force genital trauma is seen primarily with acute sexual assault and unusual impalement accidents
- Most injuries will heal completely

Take Away Messages for Legal Colleagues

- Know your examiner
- Know something about the exams yourselves so you can communicate with the examiner
- Most genital exams will be normal
- A normal examination neither confirms nor excludes the possibility of sexual abuse

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Suggested References

- Royal College of Paediatrics and Child Health. *The Physical Signs of Child Sexual Abuse: An updated evidence-based review and guidance for best practice, second edition.* May 2015
- Adams JA, Kellogg ND, Farst KJ, Harper NS, Palusci VJ, Frasier LD, Levitt CJ, Shapiro RA, Moles RL, Starling SP. Updated guidelines for the medical assessment and care of children who may have been sexually abused. *Journal of Pediatric and Adolescent Gynecology* 2016, 29:81-87. PMID:26220352
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