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SPECIAL ARTICLE

Child Sexual Abuse

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Child victims of sexual abuse may present with physical findings that can include anogenital problems, enuresis or encopresis. Behavioral changes may involve sexual acting out, aggression, depression, eating disturbances and regression. Because the examination findings of most child victims of sexual abuse are within normal limits or are nonspecific, the child's statements are extremely important. The child's history as obtained by the physician may be admitted as evidence in court trials; therefore, complete documentation of questions and answers is critical. A careful history should be obtained and a thorough physical examination should be performed with documentation of all findings. When examining the child's genitalia, it is important that the physician be familiar with normal variants, nonspecific changes and diagnostic signs of sexual abuse. Judicious use of laboratory tests, along with appropriate therapy, should be individually tailored. Forensic evidence collection is indicated in certain cases. Referral for psychologic services is important because victims of abuse are more likely to have depression, anxiety disorders, behavioral problems and post-traumatic stress disorder.

Because the diagnosis of sexual abuse often has significant psychologic, social and legal ramifications, evaluating children who allegedly have been sexually abused can be anxiety provoking for physicians, as well as for patients and their families. However, some gynecologists may not feel adequately prepared at present to perform a medical evaluation of a sexually abused child and collection of essential evidence. Gynecologists need to be knowledgeable about the available resources in the community, including consultants with special expertise in evaluating or treating sexually abused children. In this review, the role of the physician is outlined with respect to obtaining a history, physical examination, and appropriate laboratory data and in determining the need to report child sexual abuse.

Denifition

Child sexual abuse is defined as any sexual activities that a child cannot comprehend, for which the child is developmentally unprepared and cannot give consent, and/or that violate the law or social taboos of society. The sexual activities may include all forms of oral-genital, genital, or anal contact by or to the child, or nontouching abuses, such as exhibitionism, voyeurism, or using the child in the production of pornography.[1] Sexual abuse includes a spectrum of activities ranging from rape to physically less intrusive sexual abuse. Sexual abuse can be differentiated from "sexual play" by determining whether there is a developmental asymmetry among the participants and by assessing the coercive nature of the behavior.[2] Thus, when young children at the same developmental stage are looking at or touching each other's genitalia because of mutual interest, without coercion or intrusion of the body, this is considered normal behavior.

The extent of child sexual abuse in Thailand is

unknown because the incidence of child sexual abuse is difficult to assess due to methodological issues. Girls are at more risk than boys but in clinical samples boys appear to be underrepresented, presumably because they are less likely to disclose abuse. Increased risk for sexual abuse is not related to socioeconomic (education, income and occupational) status, race or ethnicity. Most of the sexually abused children have been abused by a trusted person, such as a parent, teacher, therapist, or school counselor. Such disclosure frequently triggers a family crisis, even if the children no longer has contact with the alleged perpetrator and no physical complaints are apparent.[3]

Presentation

Sexually abused children are seen by gynecologists in a variety of circumstances: 1) They may be seen for a routine physical examination or for care of a medical illness, behavioral condition (Table 1), or physical finding (Table 2) that would include child sexual abuse as part of the differential diagnosis. 2) They have been or are thought to have been sexually abused and are brought by a parent for evaluation. 3) They are brought by social service or law enforcement professionals for a medical evaluation for possible sexual abuse as part of an investigation. 4) They are brought to an emergency department after a suspected episode of sexual abuse for evaluation, evidence collection, and crisis management.

Table 1. Behavioral indicators of possible sexual abuse[4]

Appetite disturbance (anorexia, bulimia)
Conduct; oppositional-defiant disorder
Conversion reaction
Depression
Excessive masturbation
Guilt
Phobias
Promiscuity or prostitution
Sexual activity toward other children or adults
Sexualized play
Sleep disturbance
Statements about sexual activity
Substance abuse
Suicidal behavior
Temper tantrums, aggressive behavior

Sexual abuse presents in many ways,[4] and because children who are sexually abused generally are coerced into secrecy, a high level of suspicion may be required to recognize the problem. The presenting symptoms or behavioral manifestations may be so general, e.g., sleep disturbances, abdominal pain, involuntary voiding of urine (enuresis), incontinence of feces (encopresis), or phobias may indicate physical or emotional abuse or other nonabuse-related stressors.(Table 1) Among the more specific signs and symptoms of sexual abuse are rectal or genital bleeding, sexually transmitted diseases, and developmentally unusual sexual behavior.[6] When sexual abuse is suspected, the parents should be informed in a calm, nonaccusatory manner.

Table 2. Possible medical indicators of sexual abuse[5]

Genital, anal or urethral trauma
Genital or anal bleeding or itching
Genital infection or discharge
Headaches
Chronic constipation, painful defecation
Vulvitis or vulvovaginitis
Pregnancy
Foreign body in the vagina or rectum
Anal inflammation
Dysuria
Recurrent urinary tract infection
Abdominal pain
Chronic genital or anal pain
Bruises to hard or soft palate, torn frenulum
Sexually transmitted disease
Bite marks on nipples/breasts
Scratch marks or bruises on hips/buttocks
Enuresis/encopresis

Taking a history/ interviewing the child

It is desirable for those conducting the interview to use nonleading questions; avoid showing strong emotions such as shock or disbelief; and maintain a "tell me more" or "and then what happened" approach. If possible, the child should be interviewed alone. Written notes in the medical record or audiotape or videotape should be used to document the questions asked and the child's responses. Most expert interviewers do not interview children younger than 3 years. A behavioral history may reveal events or behaviors relevant to sexual abuse, even in the absence of a clear history of abuse in the child.[4] The parents may be defensive or unwilling to accept the possibility of sexual abuse, which does not necessarily negate the need for investigation.

An appropriate history should be tried in all cases before performing a medical examination. The child may spontaneously give additional information during the physical examination, particularly as the mouth, genitalia, and anus are examined.

Physical examination

The physical examination of sexually abused children should not result in additional emotional trauma. The examination should be explained to the child before it is performed. It is advisable to have a chaperone present-a supportive adult not suspected of involvement in the abuse.[7] Children may be anxious about giving a history, being examined, or having procedures performed. Time must be allotted to relieve the child's anxiety. When the alleged sexual abuse has occurred within 72 hours, or there is bleeding or acute injury, the examination should be performed immediately. In this situation, protocols for child sexual assault victims should be followed to secure biological trace evidence such as epithelial cells, semen, and blood, as well as to maintain a "chain of evidence." When more than 72 hours has passed and no acute injuries are present, an emergency examination usually is not necessary. An evaluation therefore should be scheduled at the earliest convenient time for the child, physician, and investigative team.[8] The child should have a thorough pediatric examination,

including brief assessments of developmental, behavioral, mental, and emotional status. Special attention should be paid to the growth parameters and sexual development of the child. In the rare instance when the child is unable to cooperate and the examination must be performed because of the likelihood of trauma, infection, and/or the need to collect forensic samples, consideration should be given to using sedation with careful monitoring. Instruments that magnify and illuminate the genital and rectal areas should be used.[9,10] Signs of trauma should be carefully documented by detailed diagrams illustrating the findings or photographically. Specific attention should be given to the areas involved in sexual activity-the mouth, breasts, genitals, perineal region, buttocks, and anus. Any abnormalities should be noted.

The genital examination should include inspection of the medial aspects of the thighs, labia majora and minora, clitoris, urethra, periurethral tissue, hymen, hymenal opening, fossa navicularis, and posterior fourchette. Various methods for visualizing the hymenal opening in prepubertal children have been described. Many factors will influence the size of the orifice and the exposure of the hymen and its internal structures. These include the degree of relaxation of the child, the amount of traction (gentle, moderate) on the labia majora, and the position of the child (supine, lateral, or knee to chest).[10,11] The technique used is less important than maximizing the view and recording the method and results. Speculum or digital examinations should not be performed on the prepubertal child. An otoscope or a hand-held lens with a bright light source can be used to adequately visualize the hymen.

In prepubertal girls a pelvic examination with a speculum is unnecessary unless there is unexplained, active vaginal bleeding. After the general physical examination is done the child should be placed in the supine frog-leg position as this is usually the most comfortable (Fig. 1A). In younger children seating the child in the caretaker's lap may facilitate the examination. The child should then be examined first without separation or traction, and then with simple separation (when the labia is separated laterally only). Labial separation should be done gently and with caution. Labial separation can be painful, may cause tears of the posterior fourchette/commissure and may tear a labial adhesion if present. Gentle traction should then be applied by placing the thumb and forefinger on the labia majora, and pulling laterally and downward (Fig. 1B). As tension of the other pelvic muscles can obscure and/or change the view of the vaginal vestibular structures, maintain labial traction for a few seconds to allow the child time to relax. This method is successful in opening the vaginal canal without causing additional trauma to the tissues.

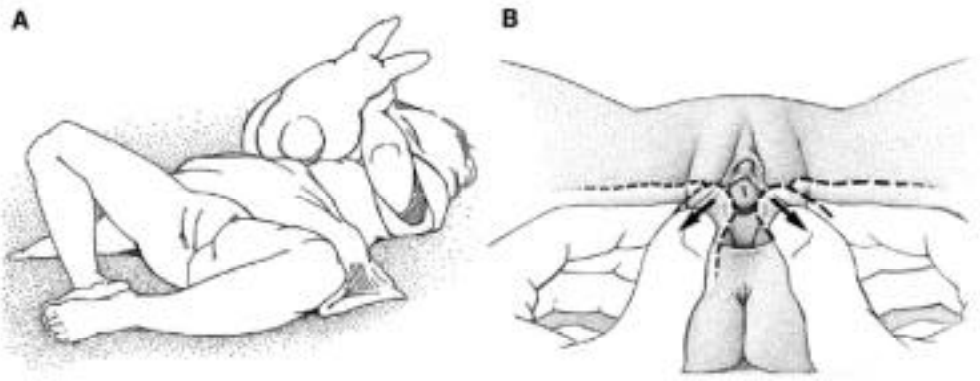

Fig. 1. A. Supine frog-leg position. B. Labial traction[12]

The child should then be placed in the knee-chest position, which is well tolerated by most children (Fig. 2).

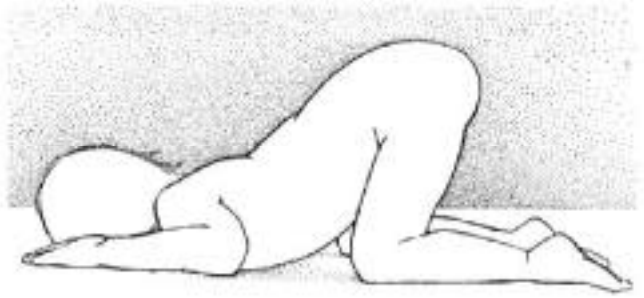

Fig. 2. Knee-chest position[12]

Examination findings change depending on the position of the child (supine, knee chest, lateral), degree of relaxation, amount of labial traction (gentle, moderate) and time to perform the evaluation. All of these variables will influence the size of the orifice, and exposure of the hymen and internal structures. The more relaxed the child is, the more visible the hymenal edges and the more dilated the introitus diameter. Therefore, it is important to view findings using varying traction and varying positions.[13]

The anus can be examined in the supine, lateral, or knee to chest position. As with the vaginal examination, the child's position may influence the appearance of anatomy. The presence of bruises around the anus, scars, anal tears (especially those that extend into the surrounding perianal skin), and anal dilation are important to note. Laxity of the sphincter, if present, should be noted, but digital examination is not usually necessary. Note the child's behavior during the examination, and ask the child to demonstrate any events that may have occurred to the areas of the body being examined. Care should be taken not to suggest answers to the questions. In all cases, carefully document anogenital abnormalities, using anatomic diagrams if helpful.(Table 3) Be aware that the anal and genital examinations are normal in more than two thirds of victims of sexual abuse.[14] The absence of physical findings can be explained by several factors. Many forms of sexual abuse do not cause physical injury.

Table 3. Significance of anogenital findings in the evaluation of sexual abuse in a child[4]

Normal and nonspecific anogenital findings
Hymenal tags
Hymenal bumps or mounds
Labial adhesions
Clefts or notches in the anterior half of the hymen
Vaginal discharge
Genital or anal erythema
Perianal skin tags
Anal fissures
Anal dilatation with stool in ampulla

Physical findings that are concerning for sexual abuse
Notches or clefts in the posterior half of the hymen extending nearly to the vaginal floor, confirmed in all positions
Condylomata acuminata in a child older than two years who gives no history of sexual contact Immediate, marked anal dilatation
Anal scarring
Physical findings that are diagnostic of penetrating trauma
Acute laceration or ecchymosis of the hymen
Absence of hymenal tissue in any portion of the posterior half
Healed hymenal transection or complete cleft
Deep anal laceration
Pregnancy without history of consensual intercourse

Laboratory data

Forensic studies should be performed when the examination occurs within 72 hours of acute sexual assault or sexual abuse. The yield of positive cultures is very low in asymptomatic prepubertal children, especially those whose history indicates fondling only. The examiner should consider the following factors when deciding whether to obtain cultures and perform serologic tests for sexually transmitteddiseases (STDs): the possibility of oral, genital, or rectal contact; the local incidence of STDs; and whether the child is symptomatic. The implications of the diagnosis of an STD for the reporting of child sexual abuse are listed in Table 4.[8]

Table 4. Implications of Commonly Encountered Sexually Transmitted Diseases (STDs) for the Diagnosis and Reporting of Sexual Abuse of Infants and Prepubertal Children[11]

STD Confirmed	Sexual Abuse	Suggested Action
Gonorrhea*	Diagnostic**	Report***
Syphilis*	Diagnostic	Report
HIV****	Diagnostic	Report
Chlamydia*	Diagnostic**	Report
Trichomonas vaginalis	Highly suspicious	Report
Condylomata acuminata* (anogenital warts)	Suspicious	Report
Herpes (genital location)	Suspicious	Report*****
Bacterial vaginosis	Inconclusive	Medical follow-up

* If not perinatally acquired.

** Use definitive diagnostic methods such as culture or DNA probes.

*** To agency mandated in community to receive reports of suspected sexual abuse.

**** If not perinatally or transfusion acquired.

***** Unless there is a clear history of autoinoculation. Herpes 1 and 2 are difficult to differentiate by current techniques.

Diagnostic considerations

The diagnosis of child sexual abuse often can be made based on a child's history. Physical examination alone is infrequently diagnostic in the absence of a history and/or specific laboratory findings. Physical findings are often absent even when the perpetrator admits to penetration of the child's genitalia.[14-16] Many types of abuse leave no physical evidence, and mucosal injuries often heal rapidly.[17] Occasionally, a child presents with clear evidence of anogenital trauma without an adequate history. Abused children may deny abuse. Findings that are concerning, but in isolation are not diagnostic of sexual abuse include: 1) abrasions or bruising of the inner thighs and genitalia; 2) scarring or tears of the labia minora; and 3) enlargement of the hymenal opening. Findings that are more concerning include: 1) scarring, tears, or distortion of the hymen; 2) a decreased amount of or absent hymenal tissue; 3) scarring of the fossa navicularis; 4) injury to or scarring of the posterior fourchette; and 5) anal lacerations.[14] Table 4 provides suggested guidelines for making the decision to report sexual abuse of children based on currently available information.

The presence of semen, sperm, or acid phosphatase; a positive culture for gonorrhea; or a positive serologic test for syphilis or human immunodeficiency virus (HIV) infection makes the diagnosis of sexual abuse a medical certainty, even in the absence of a positive history, when congenital forms of gonorrhea, syphilis, and congenital or transfusion-acquired HIV (as well as needle sharing) are excluded. Other physical signs or laboratory findings that are suspicious for sexual abuse require a complete history from the child and caregivers.

The differential diagnosis of genital trauma also includes accidental injury and physical abuse. This differentiation may be difficult and may require a careful history and multidisciplinary approach. Physicians should be aware that child sexual abuse often occurs in the context of other family problems including physical abuse, emotional maltreatment, substance abuse, and family violence. If these problems are suspected, referral for a more comprehensive evaluation is imperative. After the examination, the physician should provide appropriate feedback and reassurance to the child and family.

Records

Because the likelihood of civil or criminal court action is high, detailed records, drawings, and/or photographs should be kept.

Treatment

All children who have been sexually abused should be evaluated by the physician or mental health provider to assess the need for treatment and to measure the level of parental support. The need for treatment varies depending on the type of sexual molestation (whether the perpetrator is a family member or non-family member), the duration of the molestation, and the age and symptoms of the child.

Poor prognostic signs include more intrusive forms of abuse, more violent assaults, longer periods of sexual molestation, and closer relationship of the perpetrator to the victim. The parents of the victim may also need treatment and support to cope with the emotional trauma of their child's abuse.

Medical treatment

Prophylactic regimens for various STDs are summarized in Table 5. (No prophylactic treatment is recommended for herpes simplex virus or human papillomavirus.) Treatment regimens for patients in whom an STD has been confirmed are listed in Table 6.

Table 5. Prophylaxis for STDs[18-20]

Neisseria gonorrhoeae
Children and adolescents: Ceftriaxone 125 mg IM in a single dose*
*Ceftriaxone prophylaxis for gonorrhea provides prophylaxis for incubating syphilis.
Chlamydia trachomatis
Child <8 years: Erythromycin 50 mg/kg/d divided into 4 doses for 7 days (maximum dose 500 mg qid)
Child ≥8 years and adolescents: Azithromycin 1 g po in a single dose or Doxycycline 100 mg po bid for 7 days*
*Doxycycline should not be given during pregnancy.
Trichomoniasis and bacterial vaginosis
Adolescents: Metronidazole 2 g po in a single dose
Hepatitis B
Fully vaccinated patient should not be revaccinated
If not vaccinated: Administer hepatitis B vaccine
HIV**
Zidovudine (AZT) 200 mg po tid or 160 mg/m2/dose tid for 4 weeks plus lamivudine 150 mg dose bid or 4 mg/kg/dose bid for 4 weeks or Combivir 300 mg AZT/150 mg lamivudine bid for adolescents
**Consider infectious disease consultation. Indications for prophylaxis are unclear.

Table 6. Treatment of STDs [18-20]

Neisseria gonorrhoeae
Child <45 kg: Ceftriaxone 125 mg IM in a single dose **or** Spectinomycin 40 mg/kg (maximum 2 g) IM in a single dose
Child >=45 kg: Ceftriaxone 125 mg IM in a single dose **or** Cefixime 400 mg po in a single dose
or Spectinomycin 2 g IM in a single dose
Adolescents: Cefixime 400 mg po in a single dose* **or** Ceftriaxone 125 mg IM in a single dose*
or Ciprofloxacin 500 mg po in a single dose* **or** Ofloxacin 400 mg po in a single dose*
***Plus** either azithromycin 1 g po in a single dose or doxycycline_ 100 mg po bid for 7 days as cotreatment for Chlamydia
Pregnant women should not be treated with quinolones or tetracyclines
Chlamydia trachomatis
Child <45 kg: Erythromycin 50 mg/kg/d divided into 4 doses for 10-14 days
Child ≥45 kg but <8 years of age: Azithromycin 1 g po in a single dose
Child ≥8 years of age and adolescents: Azithromycin 1 g po in a single dose or
Doxycycline 100 mg po bid for 7 days
Pregnant women should not be treated with quinolones or tetracyclines

Syphilis

Benzathine penicillin 50,000 U/kg IM (maximum 2.4 million U)

Trichomoniasis

Children: Metronidazole 15 mg/kg/d (maximum 250 mg) divided into 3 doses for 7 days **or**
Metronidazole 40 mg/kg (maximum 2 g) po in a single dose
Adolescents: Metronidazole 2 g po in a single dose

Bacterial vaginosis

Adolescents: Metronidazole 500 mg po bid for 7 days **or** Clindamycin cream 2%, one applicator (5 g) intravaginally at bedtime for 7 days **or** Metronidazole gel 0.75%, one applicator (5 g) intravaginally qd or bid for 5 days
Alternative regimens: Metronidazole 2 g po in a single dose **or** Clindamycin 300 mg po bid for 7 days

Herpes simplex virus

Children: Acyclovir 80 mg/kg/d divided into 4 doses for 7-10 days
Adolescents: Acyclovir 400 mg po tid for 7-10 days or Famciclovir 250 mg po tid for 7-10 days
or Valacyclovir 1 g po bid for 7-10 days

Human papillomavirus**

Trichloroacetic acid 80%-90% applied topically and repeated weekly if necessary
Podophyllin 10%-25% topically followed in 1-4 hours by bathing every week for 4 weeks
Imiquimod 5% cream applied at bedtime 3 times per week
for up to 16 weeks
Laser or cryotherapy

**Consider dermatologic or gynecologic referral. Treatment depends on age of child and location and number of lesions.

Options for emergency contraception are listed in Table 7.[21,22]

Table 7. Emergency contraception[21,22]

Estrogen/progestin
(first dose within 72 hours after unprotected intercourse)
2 tablets of Ovral followed by 2 tablets 12 hours later or
Progestin-only method
(first dose within 72 hours after unprotected intercourse)
1 tablet of 0.75 mg levonorgestrel followed by 1 tablet 12 hours later.

Following acute sexual assault, pregnancy prophylaxis should be offered to adolescent girls after an informed consent has been obtained and urine pregnancy test results are negative. Because nausea is a common side effect of emergency contraception, antiemetics may also be prescribed.[23] Postexposure hepatitis B vaccination (without hepatitis B immunoglobulin) should also be offered at the time of the initial examination if the child has never been immunized. Follow-up doses should be administered one to two and four to six months after the first dose.

Psychosocial treatment

The family physician has a unique perspective in the assessment of a child victim of sexual abuse. The ongoing relationship with the parents and the children may provide the physician with valuable insight regarding the protective nature of one or both parents toward their children. Another issue is the importance of caution when the alleged perpetrator of abuse is a parent or step-parent. The physician must remain unbiased, especially when parental custody disputes are involved. Care of a child victim of sexual abuse and the family should include a referral for psychologic services. Sexually abused children are at greater risk for depression, anxiety disorders, behavior problems, increased sexual behavior and post-traumatic stress disorder. Adult survivors are also at greater risk for depression, anxiety disorders and interpersonal difficulties. One mediating factor that decreases psychologic distress should be emphasized: the presence of a supportive adult who believes the child's disclosure and takes protective action.

Conclusion

The evaluation of sexually abused children is increasingly a part of general gynecological practice. Gynecological care are part of a multidisciplinary approach to prevent, investigate, and treat the problem and need to be competent in the basic skills of history taking, physical examination, selection of laboratory tests, and differential diagnosis. An expanding clinical consultation network is available to assist the primary care physician with the assessment of difficult cases.

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