Ghosts under a child's bed: Child sexual abuse from a gynaecologist's point of view

Delphine Gallant MD, Mireille Merckx MD Phd

Delphine Gallant MD *Mireille Merckx MD Phd*

University Hospital UZ Ghent (Head of the Department of Uro-gynaecology: Prof. Dr. Steven Weyers)

Child sexual abuse can be a devastating experience, which can strongly influence the future of the affected child. It is extremely important to properly understand approach and treat children after such a trauma. In order to do so, a physician needs to keep the following in mind; the child's safety, the need for a clinical and mental examination, the child's mental health, reporting the incident(s) to the authorities and forensic evidence. Proper treatment includes protection for potential sexually transmitted diseases, as well as treatment of the physical and emotional damage. An adequate, organised approach to such a patient is essential to be able to help after child sexual abuse.

Keywords: child sexual abuse, rape, sexually transmitted infection, human papilloma virus prophylaxis

Kísértet a gyermek ágya alatt

A gyermekkori szexuális erőszak rendkívül káros következményekkel jár, meghatározó negatív következményei vannak az érintett gyermek jövője szempontjából. Nagyon fontos, hogy az ilyen traumát átélt gyermekhez megfelelő megértéssel közelítsünk és megtaláljuk a számára alkalmas terápiát. Ennek megvalósításakor a kezelőorvosnak az alábbiakat kell teljesítenie: a gyermek biztonsága, fizikális és mentális vizsgálata, a gyermek mentális állapotának felmérése, jelentéskötelezettség a hatóságok felé, valamint igazságügyi szakértői bizonyítékok gyűjtése. A kezelésnek ki kell terjednie a szexuálisan terjedő lehetséges betegségek megelőzésére, a fizikailag és érzelmileg okozott károsodások kezelésére. A megfelelő és jól szervezett ellátás elengedhetetlen a szexuális erőszakot átélt gyermek kezelésekor.

Kulcsszavak: gyermekkori szexuális zaklatás, szexuális erőszak, szexuálisan terjedő betegségek, humán papilloma vírus profilaxisa

Introduction

Child sexual abuse (CSA) can be a terrible experience, with an everlasting impact on the psychological and physical wellbeing of the victim [1]. From a medical and a human rights perspective, the ethical and clinical aspects of the item would the changing European legislation concerning sexual abuse.

According to the law, rape is "any act of sexual penetration of any kind and by any means, committed on a person who does not consent" [2, 3]. Definitions about abuse vary, but there is only consent if it was given before or during the act by anyone mentally able to assess the scope of the agreement, older than 16 years [4]. In Hungary, the age of consent is 14 [5]. Under the age of 14, each act of sexual penetration is considered rape because consent below that age is seen as inappropriate. Between 14 and 16 years, if there is no consent of the victim, it is rape [4, 5].

There is a directive in the European Union battling child sexual abuse [6]. According to the WHO, "a child is a person 19 years or younger unless national law defines a person to be an adult at an earlier age." [6] Voyeurism, fondling, child prostitution, child pornography, sodomy, oral genital stimulation, verbal stimulation, exhibitionism are part of CSA [4, 7]. Sexual assault is a crime of indecent violence and aggression that may lead to rape. The percentage of adult women and men with previous history of sexual abuse at a young age, is estimated to be an average of 20-25% [8]. In recent years, in the daily practice, more attention is paid to the care of children and adolescents of suspicious behaviour.

Correspondence:
Dr. Mireille Merckx, UZ Gent, Belgium, Nieuwelaan 39 1853 Strombeek, mireillemerckx@gmail.com

Detecting child sexual abuse

CSA should be considered when a child's behaviour is changing towards abnormal behaviour [8, 9]. There are certain signs that are indicators for abuse, such as anxiety, comportment that is different to what is described as normal by parents and relatives, unclear and uncertain or even alarming explanations for injuries, and complaints about genital pain [8, 9]. When one or more of these signs are present, further tools can be helpful for the diagnosis of CSA. It is then preferable to refer possible victims to health care providers who are specialised in treating these children. The role of the physician is to decide about the need to report the incident(s), to assess the physical, emotional, and behavioural consequences, to provide information to parents, and to provide a comprehensive treatment and follow-up [9].

How to approach a case

Five important issues should be addressed when CSA is suspected; the child's safety, the need for a clinical and mental examination, the child's mental health, reporting the incident(s) to the authorities and forensic evidence.

Child's safety

Firstly, we will address the child's safety. When it comes to safety, it is up to the health care provider to determine whether the child is in danger. In 70-90% of the cases the child victim knows the aggressor [8]. To guarantee the welfare of the child, hospitalisation can be recommended in certain cases.

Clinical examination

The physician should perform a thorough physical examination to determine injury and collect forensic evidence where it is possible. A clinical protocol drawn by doctors from various disciplines certainly helps to physically evaluate a child suspected to be the victim of sexual abuse [9].

Heger and colleagues conducted a comprehensive study that included the review of physical examinations performed on 2,384 children evaluated for suspected child sexual abuse in a regional referral [10]. They found that, overall, only 4% of the children had abnormal findings. The first important point was that the child and family typically know the perpetrators, and physical force is not often a major component. Secondly, disclosure of the abuse is often delayed up to weeks or even to months after the abusive contact [10, 11]. Mucous membranes heal rapidly and often without scars. It is rare that a child will not cooperate during the examination. When an examination is impossible and necessary for medico-legal purposes, an examination under general anaesthesia is necessary. The presence of a parent or adult can help to reassure the child during the investigation.

A detailed description of all genital structures is mandatory [9]. When examining a child, the victim should be placed in the supine position. The major labia may be grasped between the thumb and index finger of each hand and gently spread laterally and downwardly. By applying slight traction, the hymen will be better visualized. In the knee-chest position, one gets a better view of the posterior edge of the hymen, vagina and anus [9]. The diameter of the hymen has been the subject of numerous studies, which represent many controversies [10–14]. It is generally believed that a child of five years has a vaginal introits with a diameter of about 5mm, which increases annually by 1mm. When examining a 10-year-old child, one can expect a diameter of 10mm [9]. However, this measurement is dependent on numerous factors such as position, traction, degree of inflammatory swelling, etc. [9].

A colposcopic examination could allow a better view of lesions [9]. In case of suspected anal injury, an anuscope can be used [15]. It should not be forgotten that in such cases a detailed history has to be made (e.g. constipation, diarrhoea, us of laxatives, difficulty sitting). It is important that lesions and deviations be recorded accurately or even documented through photographs [9, 16].

Furthermore, bacteriological and serological samples for the detection of hepatitis B and C, syphilis, human immunodeficiency virus (HIV), gonococci and chlamydia must be carried out. The WHO states there should be screening and referral for HIV infection [17]. It takes two to six weeks for HIV to be detectable in the human serum. To allow sufficient time for antibodies to develop, a follow-up visit approximately 12 weeks after most recent sexual exposure may be necessary to collect sera. Further testing should be carried out until six months after the latest exposure [17].

According to Garland [18], the likelihood of possible abuse in childhood before the age of 18 increases with age. If it occurs, prevalence of human papilloma virus (HPV) transmission varies from 3.4% to 33%. Of the penetrative sexual abuse of boys (3-17%) and girls (8-31%), 70% will occur before the age of HPV vaccination. Being aware there is diversity in genotypes of HPV [19], vaccination even at a young age is in children at risk of repeated abuse, more than ever indicated [18, 20].

Mental examination

When assessing a case of CSA, it is essential that a child be not only physically examined, but also assessed for mental health problems such as post-traumatic stress disorder (PTSD) or depression. Appropriate emergency mental health care is important. Signs that should alarm a physician are recurrent abdominal aches, headaches, changes in behaviour, enuresis, insomnia, reduced appetite, anxiety, depression, or a decline in school results. As mentioned earlier, the child and its surroundings often know the aggressor. The frequency of assault may vary; it can be a singular event or a series of repeated assaults, sometimes on-going at the time of presentation, repeatedly. In the latter case, the child usually knows the offender and he/she/they is/are often part of the family [9].

The recovery prognosis from the emotional trauma varies depending on the child's ability to cope with the trauma and its aftermath, the response of the child's environment to the victimisation, the age when the abuse occurred, the relation-

ship of the aggressor to the child, the length of time over which the abuse occurred, the pattern of the abuse [8, 9].

Child protective services, legal procedures and medical health services should be non-judgmental and caring. The comparison between victims of CSA and 5-year-old non-abused children shows more disturbed behaviour, lower self-esteem, increased tendency for depression and anxiety in abused children [9]. Retrospective studies of adults with severe personality disorders and self-mutilation have a correlation with histories of sexual abuse [21].

Reporting to the authorities and collecting forensic evidence

Next, it is important to report the incident(s) to the authorities. The physician needs to determine if there is evidence of suspected abuse. The documented evidence can then be presented to the authorities. Therefore, adequate forensic evidence collection is mandatory. If the abuse was recent, the child should be immediately referred to those capable of gathering this evidence. It is recommended to collect forensic material up to 72 hours after the sexual abuse occurred. In Belgium, forensic evidence is best collected using a sexual assault set (S.A.S.). This is a box provided by the National Institute for Criminality and Criminology (N.I.C.C.), which allows the physician to take a variety of samples. It is extremely important to avoid contamination by the examiner. Any possible traces of DNA are to be collected to best identify the perpetrator; at vulvo-vaginal level, orally, anal swabs, or anywhere elsewhere on the body where blood, semen or saliva may be found. In Hungary, a guideline for standard management is available at the University of Debrecen [22]. Depending on the nature of the abuse, the presence of spermatozoa can be detected. In cases of vaginal sexual contact they remain at an average of 2-3 days thereafter, on average up to 1 day in case of anal intercourse and up to 21 hours at oral contact [16]. After applying the sexual assault kit, it is sealed and sent to the authorities. It is important to know that the SAS is not analysed systematically, but only on the request of the authorities. It is therefore of utmost importance to take double samples and to continue with further monitoring of the patient for medical reasons.

Treatment

Besides the previously discussed need for adequate psychiatric treatment, clinical consequences are to be treated or even prevented. A history of sexual aggression is associated with many long-term behavioural sexual issues, such as unprotected intercourse, having a greater number of partners, prostitution (exchange of sexual favours for money, drugs or shelter) [8, 9, 21]. This risky sexual behaviour ultimately leads to an increase of STIs in this population. Post-traumatic stress symptoms can be expressed through self-destructive coping, such as excessive drinking, suicidal thoughts, and self-blame. This young and vulnerable population has a real need for continuous guidance.

Firstly, it is important to discuss sexually transmitted infections (STI). Besides chlamydia, gonorrhoea, herpes simplex and syphilis, the child can be at risk for HIV and HPV [23, 24]. A vaginal swab should be taken at every examination, first void urine can be tested for chlamydia, and serological STI testing should be carried out. If any sexual contact with ejaculation took place and if the offender is a risk person, a post-exposure anti-HIV treatment will be necessary. Post-exposure STI prophylaxis should be started as soon as possible, within 72 hours. As mentioned beforehand, serological testing for HIV should be carried out frequently until six months after the latest exposure to the aggressor. Heavy preventive antiretroviral drugs are the only treatment to eradicate HIV [17, 25, 26].

ETHICAL SIDE NOTE; The question arises whether aggressors should be obliged to undergo a blood test knowing that the right of the offender stops where the victim's right to be protected starts. Perhaps more importantly: will it make a difference?

Another important STI like problem is HPV, for which there is no routine post exposure prophylaxis. Genital HPV infection is rare in virgins and can be transmitted through a variety of forms of sexual abuse; genital-genital contact, genital-anal contact, oral-genital contact, fondling, digital anal/genital penetration and non-penetrative sexual contact [23, 27]. A child's sexuality can be influenced by the society in which it grows up and is triggered by social, emotional, physical, cultural, economic and political factors [1, 9, 21]. Speculating about the onset of sexual activity is therefore not evident. Identifying HPV genotype-specific distribution and related cervical lesions in underage children was recently studied [19, 28]. An unexpectedly high frequency of HPV infections in underage girls is confirmed and also indicates that the genotyping profiles are somewhat aberrant from what is described for an adult population [19]. The child's immature cervix is more vulnerable for HPV pathogens [19]. Unger has described anogenital warts as a marker for CSA [22]. The impact of vaccination will limit the usefulness and the significance of this exam. The success of future HPV vaccination programs depends on the timing of vaccination, especially before and even after unplanned exposure [20, 29–33]. The implementation of a nonavalent vaccine in the post-exposure prophylaxis of sexual abuse could become crucial to controlling the disease [32].

Limitations are that vaccinations are currently not recommended for young children under the age of nine or even newborns. Supporting prophylactic (not therapeutic) HPV vaccination is triggered by the knowledge that the safety period obtained by the implementation is longer than 30 years [32, 34]. In a brave new world we should consider vaccinating much earlier, even at birth remains an open question.

Conclusion

Although the exact prevalence is unknown, it is estimated that 12-40% of children in the USA experience some form of childhood sexual abuse [35]. Approximately one in five women have experienced childhood sexual abuse. Incest,

once thought to be rare, occurs with alarming frequency. The mean age of abuse is estimated to be 12 years. Survivors come from all cultural, racial, and economic groups.

Detection and thorough examination is essential to be able to adequately help a victim of CSI. When approaching a patient, it is important to take into consideration the child's safety, to complete a detailed physical examination, to evaluate the mental health of the child, to report the incident to the authorities and to be capable of collecting adequate forensic evidence. It is only possible to help a child when these five points are taken into consideration.

When treating a patient, pay attention to mental as well as physical wellbeing. Offering a three-day post-exposure prophylaxis kit can relieve the patient and its surroundings of extra stress. Emergency contraception should be included in this kit and HPV-vaccination is an option. Child sexual abuse calls for protection, the risk of on-going HPV exposure is greater in these vulnerable children. It is not acceptable that someday these raped children could die from a disease that can be prevented by a vaccine. To ignore children's rights is destroying their beliefs that the world is good, there is hope we will soon vaccinate children at a much younger age and definitely always in case of abuse.

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References

1. Arriola KRJ, Louden T, Doldren MA, Fortenbe RM. A meta-analysis of the relationship of child sexual abuse to HIV risk behavior among women. Child Abuse & Neglect 2005; 29: 725–746.

2. Californian Penal Code part 1, title 9: crimes against the person involving sexual assault and crimes against public decency and good morals. Section 261–368.5.

3. Wet 4 juli 1989 tot wijziging van sommige bepalingen betreffende het misdrijf verkrachting, Belgisch Strafwetboek. (1989, 4 July).

4. Jacobs M, Frans E, Verhetsel L, Vergauwen S, Poppe B. Dossier jongeren en Seksualiteit: het recht op seksuele gezondheid en ontwikkeling. Kinderrechtencommissariaat. Drukkerij Artoos, May 2011.

5. Complex Kiadó Kft. "2012. évi C. törvény – a Büntető Törvénykönyvről".

6. World Health Organization. Consolidated ARV guidelines. Definition of key terms. June 2013. (http://www.who.int/hiv/pub/guidelines/arv2013/intro/keyterms/en/, consulted Jan 2018).

7. Directive 2011/92/EU of the European Parliament and of the Council of 13 December 2011 on combating the sexual abuse and sexual exploitation of children and child pornography, and replacing Council Framework Decision 2004/68/JHA

8. Evy De Boosere, Mireille Merckx, Werner Jacobs. Evaluatie van seksueel misbruik bij kinderen, Gunaikea 2010; 15(3).

9. Adams J. Medical Evaluation of Suspected Child Sexual Abuse. Pediatric Adolescent Gynecology 2004; 17: 191–197.

10. Heger A, Ticson L, Velasquez O, et al. Children referred for possible sexual abuse: Medical findings in 2384 children. Child Abuse Negl June 2002; 26(6–7): 645–59.

11. Heger A, Ticson L, Velasquez O, Bernier R. Appearance of the genitalia in girls selected for non-abuse: Review of hymenal morphology and non-specific findings. J Pediatr Adolesc Gynecol 2002; 15(27).

12. McCann J, Voris J, Simon M. Genital Injuries Resulting from Sexual Abuse: A Longitudinal Study. Pediatrics. February 1992; 89(2): 307–17.

13. Kellogg ND, Menard SW, Santos A. Genital anatomy in pregnant adolescents: "normal" doesn't mean "nothing happened." Pediatrics 2004; 113: 67–69.

14. Heppenstall-Heger A1, McConnell G, Ticson L, Guerra L, Lister J, Zaragoza T. Heal- ing patterns in anogenital injuries: A longitudinal study of injuries associated with sexual abuse, accidental injuries, or genital surgery in the preadolescent child. Pediatrics 2003; 112(4): 829–37.

15. McCann J, Voris, J. Perianal injuries resulting from sexual abuse: A longitudinal study. Pediatrics 1993; 91: 390.

16. Rogers D, Newton M, Sexual Assault Examination. Clinical Forensic Medicine: A Physician's Guide, 2nd Edition 2001; 61–124.

17. World Health Organization. Consolidated guidelines on HIV prevention, diagnosis, treatment and care for key populations – 2016 update.

18. Garland S, Subasinghe AK, Jayasinghe YL, Wark JD, Moscicki A-B, Singer A, Bosch X, Cusack K, Stanley M. HPV vaccination for victims of childhood sexual abuse. The Lancet 2015; 386(10007): 1919– 920.

19. Merckx M, Benoy I, Meyers J, Depuydt C, Weyers S, Temmerman M, Vandenbroeck D. High frequency of genital HPV infections and related cervical dysplasia in adolescent girls in Belgium. Eur J Cancer Prev Jul 2015; 23(4): 288–93.

20. Demarteau N, Van Kriekinge G, Simon P. Incremental cost-effectiveness evaluation of vaccinating girls against cervical cancer pre and post-sexual debut in Belgium. Vaccine 2013; 31: 3962–3971.

21. Serafini G, Canepa G, Adavastro G, Nebbia J, Belvederi Murri M, et al. The Relationship between Childhood Maltreatment and Non-Suicidal Self-Injury: A Systematic Review. Front Psychiatry 24 Aug 2017; 8(149).

22. Csorba R, Tsikouras P, Lampé R, Póka R. The sexual abuse of female children in Hungary: 20 years' experience. Archives of Gynecology and Obstetrics. July 2012; 286(1):161–166.

23. Unger ER, Fajman N, Maloney EM, Onyekwuluje J. Anogenital Human Papillomavirus in Sexually Abused and Nonabused Children A Multicenter Study. Pediatrics 2011; 128: 658–665.

24. Hammerschlag MR. Sexually transmitted diseases in sexually abused children: medical and legal implications. Sexually Transmitted Infections 1998; 74: 167–174.

25. U.S. Department of Health and Human Services. Treatment guidelines for sexually transmitted diseases. MMWR. 5 June 2015; 64(3). (https://www.cdc.gov/std/tg2015/tg-2015-print.pdf, consulted Oct 2017).

26. Hachey M, Van As AB. HIV Postexposure Prophylaxis in Victims of Child Sexual Abuse. Annals of Emergency Medicine Jul 2003; 46(1): 97–98.

27. Asiaf A, Ahmad ST, Mohammad SO, Zargar A. Review of the current knowledge on the epidemiology, pathogenesis, and prevention of human papillomavirus infection. Eur J Cancer Prev 2014; 23(3): 206–224.

28. Merckx M, Lewi L, Arbyn M, Weyers S, Temmerman M, Vanden Broeck D. (2012) Transmission of carcinogenic HPV types from mother to child: a meta-analysis of published studies. Eur J Cancer Prev 2013 May; 22(3):277–85.

29. Cummings T, Zimet GD, Brown D, Tu W, Yang Z, Fortenberry JD, Shew ML. Reduction of HPV infections through vaccination among at-risk urban adolescents. Vaccine 2012; 30(37): 5496–5499.

30. Meszner Z, Jankovics I, Nagy A, Gerlinger I, Katona G. Recurrent laryngeal papillomatosis with oesophageal involvement in a 2 year old boy: Successful treatment with the quadrivalent human papillomatosis vaccine. International Journal of Pediatric Otorhinolaryngology 2015; 79: 262–266.

31. Mudry P, Martin V, Mazanek P, Machalova M, Litzman J, Sterba J. Laryngeal papillomatosis: successful treatment with human papillomavirus vaccination. Arch Dis Child 2011; 96: 476–477.

32. Van Damme P, Bonanni P, Bosch FX, Joura E, Kjaer SK, Meijer CJ, Petry KU, Soubeyrand B, Verstraeten T, Stanley M. Use of the nonavalent HPV vaccine in individuals previously fully or partially vaccinated with bivalent or quadrivalent HPV vaccines. Vaccine Feb 2016; 34(6): 757–61.

33. World Health Organization. Guidelines to assure the quality, safety and efficacy of recombinant human papillomavirus-like particle vaccines. WHO Technical Report Series, Annex 1. 2006. (http://whqlibdoc.who.int/trs/WHO_TRS_962_eng.pdf?Ua=1, consulted Oct 2017).

34. Arbyn MJ. Evidence regarding human papillomavirus testing in secondary prevention of cervical cancer. Vaccine 2012; 30(5): 88–99.

35. Rape, Abuse and Incest National Network. Sexual assault Oct 2015. (https://www.rainn.org/articles/sexual-assault, consulted Oct 2017).