Determination of child abuse.

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Abstract

Children can be easy victims of physical and sexual violence because they are extremely vulnerable and incapable of defending themselves. It makes them ideal targets for victimization. The consequences of child abuse and negligence are really serious and they may affect over the victims themselves and the society in which they live. That's why; there is a real need for a successful management based on the prevention of child abuse and the protection of children. Official reports do not capture all cases in which child abuse and neglect is suspected or even is detected and acted upon. A future retrospective research and creating universal guidelines and algorithm for acting in cases of child abuse could help in reducing and preventing the problem with child maltreatment.

Keywords: Child abuse, Child maltreatment, Shaken baby syndrome, Abusive head trauma, Congenital dermal melanocytosis

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Introduction

Child abuse syndrome includes physical, sexual and emotional abuse over children and it is a global problem which has significant consequences for public health [1]. The problem of child abuse and human rights violations is one of the most critical matters on the international human rights agenda [2]. For the last two decades clinicians have described many of the outcomes of child abuse [3]. Physical consequences range from minor injuries to severe trauma and death. Psychological consequences may range from chronic low self-esteem to severe dissociative diseases. The cognitive effects of abuse usually range from learning disorders to severe organic brain syndromes. Behaviorally, they may vary from poor peer relations to extraordinarily violent behaviors. It's easy to think that child abuse and neglect is only a problem associated with families at risk. However, the reality is actually different. Parenting today is a really challenging and a difficult process. Many new parents has never held a baby before, many families are far from the support of their families- grandmothers and grandfathers, most parents often work long hours with high levels of stress and also there are families with only one parent. Many of these families are coping this stress with alcohol or drug addiction, or domestic violence, reflecting over their children and including them at high risk for their health. Thus the child abuse is a violation of a child's basic human rights and is the outcome of a set of interrelated familial, social, psychological, and economic factors [4].

Discussion

In 1999, the WHO Consultation on Child Abuse Prevention drafted the following definition of the child abuse syndrome: "Child abuse or maltreatment constitutes all forms of physical and/or emotional ill-treatment, sexual abuse, neglect or negligent treatment or commercial or other exploitation, resulting in actual or potential harm to the child's health, survival, development or dignity in the context of a relationship of responsibility,

trust or power."[5]. Every year around the world there are millions of children who are at high risk of abuse or neglect, or who are actually victims of maltreatment. Nowadays, there is crucial evidence of the short and long-term consequences of this child abuse. It includes brain damage, chronic low selfesteem, problems forming relationships, learning disorders and also aggressive behavior. The most vulnerable are the youngest children [6,7], especially babies, making them more susceptible to traumatic injuries, some of these injuries are potentially fatal. The reason for this is the fact that babies are incapable of defending themselves. Every year the number of victims of child abuse is slightly increasing. This tendency is seen also in our country. These injuries may be caused by various agents, even heating devices or hot water [8]. It has been estimated that the annual incidence of abuse is between 15 and 40 cases per 1,000 children between different countries. Thus, approximately one million children become victims every year and more than 1,200 die as a result of abuse [9,10]. Abandoned and neglected newborns seems to be the most common cause of death, followed by blunt trauma which is the second common cause of death in cases of child abuse. Rare causes of death are also stabbing, poisoning, hanging, drowning, and throttling or firearm injury [11]. In cases with presented blunt trauma, leading cause of death in most of cases is the severe brain trauma, usually represented by acute subdural hematomas. Another cause of death could be fractures of cranial bones, subarachnoid hemorrhages or brain contusions. The typical cause of the development of subdural hematomas is "shaken baby syndrome" or abusive head trauma [12]. It is manifested usually with acute subdural hematomas and retinal hemorrhages, associated with fingertip bruises on arms, fractures of ribs and/or handle bucket/corn fractures on legs. In many cases these findings seen on external examination may not be presented. Furthermore, according to blunt force injuries, second leading cause of death is the abdominal trauma [11], presenting with ruptures of spleen, liver or intestines.

Sometimes, specific fractures can play a significant role as

predictors for child abuse syndrome, for example the presence of corner or bucket handle fractures. Other fractures in this category are bilateral rib fractures, fractures of the scapula, complex skull fractures, fractures of the distal fourth of the scapula, vertebral fractures and subluxations, finger fractures in children who have not yet learned to walk, fractures of different ages, and bilateral fractures [13]. Important point of view is that these injuries not in all of cases are connected with child abuse, and could have accidental origin. As we mentioned before, in numerous cases child abuse is presented with absence of any traumatic injury over the victims. If these injuries are presented, they are usually superficial bruises, abrasions or lacerations, which easy could be missed on physical examination by medical practitioners. In this direction we recommend that the physical examination to be made with high attention and precision part by part.

Sexual abuse is manifested with different morphological traumatic injuries in genital area of the victims. Most sexually abused children do not have any signs of genital or anal injury, especially when they are examined non-acutely [14]. But this is not strongly a rule, because in numerous of cases, over the victim may be seen many severe traumatic injuries. Most common traumatic injuries are contusions of the skin and the mucosa in the genital or anal area, or ruptures of the genital muscles and tissues. This type of abuse can lead to serious complications such as sexually transmitted infections- syphilis, gonorrhea, HIV, and these infections caused by human papillomavirus and herpes simplex virus in children [14], or even pregnancy.

In addition to this, really actual consist to be the problem with the rapid detecting of the families at risk and the correct diagnose of victims of child maltreatment. By analyzing the data from many scientific researchers, it is well established that child abuse syndrome is a huge problem for modern society, which also seen in Bulgaria. One of the persisting problems in child abuse is the growing part of the not reported cases. It masks the real dimensions and severity of the problem. In this direction, further research in large study population is recommended. This study population must be selected from children, who are patients in pediatric, emergency, neurosurgery, surgery, orthopedic surgery, and plastic surgery and forensic medicine departments. After making this research, creating of an algorithm for examination and accepting of universal guidelines in these violent cases will be really helpful [15-17]. All findings, especially traumatic ones, must be well described and well-illustrated with figures and photographs. The diagnosis and assessment of violence over children must include collaboration between many doctors from different medical specialties. The main role have pediatricians, family doctors, medical doctors at the emergency department, orthopedics and forensic doctors, who are the first, facing with the victims of child abuse. In these cases interdisciplinary work, training in communication skills, child development and family functions are strongly recommended [18]. It is recommended by many authors, who are close to the problems of child maltreatment. The guideline for examination or screening instrument to identify of potential child abuse must include victim's personal data, case history, current physical and mental examination, and additional tests if they are needed.

The physical examination must include details about every part and every system in the body. In cases of potential victims of sexual abuse the examination must be made as soon as possible, and some recommendations are made in this direction. Prevention and dealing with the problem called child maltreatment is not easy task. It requires a multidisciplinary approach with great effort and coordination among the public administration, numerous professionals, families, victims, and society in general [19,20].

On the opposite side is the problem with medical diagnostic errors in possible child abuse cases, which could have also negative consequences [21]. These consequences affect directly over relationships between family members. There are numerous cases in which the fatal child abuse has been mistaken for sudden infant death syndrome. It is important to notice that when a healthy infant younger than 1 year dies suddenly and unexpectedly, the cause of death may be certified as sudden infant death syndrome. Sudden infant death syndrome is more common than infanticide [22]. Furthermore, there are many disorders, which can mimic child abuse, and which must be known by medical specialists, who will examine the potentially victims of child abuse. For example the congenital dermal melanocytosis, vascular malformations, epidermolisis bullosa, incontinentia pigmenti, urticaria pigmentosa, phytophotodermatitis, urticaria pigmentosa, lichen sclerosus, platelet disorders, factor deficiencies and fibrogen defects. Also, there are some diseases which can mimic abusive head trauma-Menkes disease and glutaric aciduria type 1. Osteogeneis imperfecta is another pathological condition which can masquerade child abuse, especially in cases with fractures of bones [23].

That's why the diagnosis and assessment of violence over children must be done with special care, appropriate professional knowledge, critical sight and increased attention. It is well known that half of the children who are victims of physical abuse, when returned back home, they are subsequently beaten again. Every physician who suspects that a case is one of child abuse should immediately inform the police department, the prosecutor's office or responsible government agencies.

Conclusion

The consequences of child abuse and neglect are really serious and they may affect over the victims themselves, the families in which they live and the society at all. That's why; there is a real need for a successful management based on the prevention of child abuse and the protection of children. It is needed to say that not all cases of child abuse and neglect are reported, and standards for reasonable suspicion of abuse and neglect are not clear-cut. Therefore, official reports do not capture all cases in which child abuse and neglect is suspected or even is detected and acted upon. A future retrospective research and creating universal guidelines and algorithm for acting in cases of child abuse could help in reducing and preventing the problem with child maltreatment.

References

1. Krug EG, Mercy JA, Dahlberg LL, et al. The world

- report on violence and health. The lancet. 2002 Oct 5;360(9339):1083-8.
- 2. Kellogg ND, Parra JM, Menard S. Children with anogenital symptoms and signs referred for sexual abuse evaluations. Archives of pediatrics & adolescent medicine. 1998 Jul 1;152(7):634-41.
- 3. Nemeroff CB. Paradise lost: the neurobiological and clinical consequences of child abuse and neglect. Neuron. 2016 Mar 2;89(5):892-909.
- 4. Aboul-Hagag KE, Hamed AF. Prevalence and pattern of child sexual abuse reported by cross sectional study among the university students, Sohag University, Egypt. Egyptian Journal of Forensic Sciences. 2012 Sep 1;2(3):89-96.
- 5. Report on the Consultation on Child Abuse Prevention, Geneva, 1999 Mar; 29-31.
- 6. Ahumuza SE, Matovu JK, Ddamulira JB, et al. Challenges in accessing sexual and reproductive health services by people with physical disabilities in Kampala, Uganda. Reproductive health. 2014 Dec;11(1):59.
- 7. Thomas DE, Leventhal JM, Friedlaender E. Referrals to a hospital-based child abuse committee: a comparison of the 1960s and 1990s☆. Child abuse & neglect. 2001 Feb 1;25(2):203-13.
- 8. Pawlik MC, Kemp A, Maguire S, et al. Children with burns referred for child abuse evaluation: Burn characteristics and co-existent injuries. Child abuse & neglect. 2016 May 1;55:52-61.
- 9. Kocher MS, Kasser JR. Orthopaedic aspects of child abuse. JAAOS-Journal of the American Academy of Orthopaedic Surgeons. 2000 Jan 1;8(1):10-20.
- 10. Terra BB, de Figueiredo EA, de Oliveira Lima MP, et al. Child abuse: review of the literature. Revista Brasileira de Ortopedia (English Edition). 2013 Jan 1;48(1):11-6.
- 11. El-Elemi AH, Moustafa SM. Review of 89 autopsies of child deaths from violence and neglect in the Suez Canal area, Egypt. Egyptian Journal of Forensic Sciences. 2013 Dec 1;3(4):116-22.
- 12. Karibe H, KaMeyaMa M, HayasHi T, et al. Acute subdural hematoma in infants with abusive head trauma: a literature review. Neurologia medico-chirurgica. 2016;56(5):264-73.

- 13. Fassier A, Gaucherand P, Kohler R. Fractures in children younger than 18 months. Orthopaedics & Traumatology: Surgery & Research. 2013 Feb 1;99(1):S160-70.
- Adams JA, Farst KJ, Kellogg ND. Interpretation of medical findings in suspected child sexual abuse: an update for 2018. Journal of pediatric and adolescent gynecology. 2017 Dec 30.
- 15. Braynova- Michich I. Violence over children- forensic and clinical assessment. ARSO 2017.
- 16. Adams JA. Guidelines for medical care of children evaluated for suspected sexual abuse: an update for 2008. Current opinion in obstetrics and gynecology. 2008 Oct 1;20(5):435-41.
- 17. Mouesca JP. Child maltreatment prevention: the pediatrician's role. Part 2. Prevention before it happens, when suspected and when abuse is confirmed. Archivos argentinos de pediatria. 2016 Feb;114(1):64-74.
- Abdalá AL, Clift HV, Ceniceros AM, et al. Child abuse: knowledge, attention and diffusion in three pediatric hospitals in Mexico. Boletín Médico Del Hospital Infantil de México (English Edition). 2017 Nov 14.
- 19. Louwers EC, Korfage IJ, Affourtit MJ, et al. Accuracy of a screening instrument to identify potential child abuse in emergency departments. Child abuse & neglect. 2014 Jul 1;38(7):1275-81.
- 20. Magalhaes T, Taveira F, Jardim P, et al. Sexual abuse of children. A comparative study of intra and extra familial cases. J Forensic Leg Med 2009; 16(8):455-9.
- 21. Anderst J, Nielsen-Parker M, Moffatt M, et al. Using simulation to identify sources of medical diagnostic error in child physical abuse. Child abuse & neglect. 2016 Feb 1;52:62-9.
- 22. Hymel KP. Distinguishing sudden infant death syndrome from child abuse fatalities. Pediatrics. 2006 Jul 1;118(1):421-7.
- 23. Patel B, Butterfield R. Common skin and bleeding disorders that can potentially masquerade as child abuse. InAmerican Journal of Medical Genetics Part C: Seminars in Medical Genetics 2015 Dec 1 169(4):328-36.

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