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Clinical approach in children with suspected physical abuse

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ABSTRACT

Objective: Child abuse is defined as any deliberate or unintentional behavior by an adult that negatively affects the health and physical development of the child. Although the clinical presentation varies from case to case, non-accidental injuries that cannot be explained or are incompatible with the developmental stage of the child draw attention to the definitions of physical abuse.

Material and Methods: An accurate and appropriate history is important in the diagnosis of child abuse. Especially, careful and detailed interviews should be performed with individuals who are obliged to look after the child. Complete physical examination should be performed.

Results: This article was aimed to discuss the clinical approach, examinations to be performed and solutions in children with suspected physical abuse in clinical practice.

Conclusion: Child abuse causes psychological, behavioral, and social effects on children. It leads to negative effects at the highest level especially if it occurs in the 1st years. Significant responsibility falls on pediatricians on this subject.

Keywords: Child abuse; clinical approach; non-accidental injuries.

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Fiziksel istismar şüpheli çocuklarda klinik yaklaşım

ÖZET

Amaç: Çocuk istismarı, bir yetişkin tarafından çocuğun sağlığı ve fiziksel gelişimi üzerinde zararlı etkisi olan kasıtlı veya kasıtsız herhangi bir eylem olarak tanımlanır. Açıklanamayan veya çocuğun gelişim evresi ile bağdaşmayan kaza sonucu olmayan yaralanmalar, fiziksel istismar tanımlarına dikkat çekmektedir.

Gereç ve Yöntemler: Çocuk istismarını teşhis etmek için eksiksiz ve doğru bir geçmişe sahip olmak çok önemlidir. Özellikle çocuğa bakmakla yükümlü olan kişilerle dikkatli ve ayrıntılı bir şekilde görüşülmelidir. Kapsamlı bir fizik muayene yapılmalıdır.

Bulgular: Bu makale, klinik pratikte fiziksel istismar şüphesi olan çocuklarda klinik yaklaşımı, yapılacak tetkikleri ve çözümleri tartışmayı amaçladı.

Tartışma: Klinik uygulamada fiziksel istismar şüphesi olan çocuklarda klinik yaklaşımı, yapılacak tetkikleri ve çözümleri bulmaktır. Çocuk istismarı çocukların psikolojik, davranışsal ve sosyal gelişimini etkiler. Özellikle yaşamın ilk yıllarında ortaya çıkarsa, en büyük zararlı sonuçlara sahiptir. Bu konuda pediatri büyük sorumluluk düşmektedir.

Anahtar Kelimeler: Çocuk istismarı; klinik yaklaşım; kaza dışı yaralanmalar.

INTRODUCTION

Child abuse is any intentional or unintentional behavior by an adult that negatively affects the child's health and physical development. Child abuse is a serious problem with medical, legal and psychosocial dimensions that may result in death, if it is misdiagnosed or if the diagnosis is delayed (1, 2). Issues may arise in terms of why it was not diagnosed or what should have been implemented for prevention.

Child abuse is examined under four main titles: physical abuse, sexual abuse, emotional abuse and neglect. Physical abuse is defined as a non-accidental physical injury inflicted on a child by a parent or caregiver or allowing someone to inflict physical injury on a child (1–3). This article, aims to give information that will guide pediatricians when they confront a patient with suspected physical abuse by discussing the clinical approach, investigations to be performed and solutions in children with suspected physical abuse.

MATERIAL AND METHODS

Prevalence of Physical Abuse

Although the prevalence shows the variance between different societies, 1% of children are exposed to abuse and 1.5% are exposed to neglect according to the USA data. However, this prevalence is thought to be very low (1–4). As the child's age gets older, the rate of abuse increases. One-third of the subjects are infants aged under 6 months. The second 1/3 fraction includes children aged between 6 months and 3 years and the third 1/3 fraction is includes children aged above 3 years. Therefore, abuse should always be kept in mind during the examination of children aged under 3 years and especially in the first 6 months. Although it has been reported that there is no sex difference in terms of physical abuse especially in the preschool period, girls are exposed to physical abuse at a higher rate compared to boys (52% vs. 48%) (1–3). Among abuse-related causes of death, shaken baby syndrome, blunt trauma and intoxications are detected most commonly (1). The World Health Organization reported the prevalence of physical abuse to be 23%, whereas the prevalence of physical abuse in children aged between 7 and 18 years in Türkiye was reported to be 45% in the UNICEF 2010 report (1). In the same report, hair pulling, ear pulling, throwing an object, beating and slapping in the face were defined as the most common types of physical abuse, and it was emphasized that mothers implemented emotional and physical abuse with a higher rate compared to fathers (1). However, if the father was unemployed and was staying at home, the exploiters were mostly by them and thus the implemented more severe exploitation.

Risk Factors

When examining the risk factors, it will be more convenient to classify them as child-related, parent-related and environment-setting-related (appropriate time and place) causes.

Child-Related Causes

Being an unwanted and illegitimate child, being a stepchild or having sex unwanted by the parents or being a child who has a history of mother-baby separation in the early period, being bad-tempered, having disrupted sleep and nutritional pattern, crying too much, having growth retardation and behavioral disorder such as hyperactivity, and having a chronic disease.

Parent/Caregiver-Related Causes

Parents who had been exposed to exploitation in their childhood, young or single parent, substance addiction, mental disorders, job loss, domestic violence, a parent with a history of abuse.

Environmental Causes

Low socioeconomic status, social inequalities, lack of laws directed to the protection of children or flaws in the implementation of the laws, social acceptability of violence.

All these factors increase the probability of exploitation of children. When taking history, it is important to interrogate these risk factors in terms of early detection of cases of child abuse (2–4).

Clinical Presentations

Although the clinical presentation varies from case to case, non-accidental injuries or injuries incompatible with the child's developmental stage related to lack of protection as described in the definition of physical abuse, are noted (4–7).

In direct proportion to the type and severity of the trauma, children may present with neurological findings such as restlessness, impaired consciousness, agitation, somnolence and coma, fluid-electrolyte disorders-shock (due to large burns or deep tissue trauma), intracranial (subdural), retinal and/or intra-abdominal hemorrhages as well as ecchymoses with different color, shape and dimensions (especially the ones not involving extensor surfaces), burns (shaped cigarette burns or scars, stocking or glove pattern burn scars) found on the skin during routine child health examination or during the examination of a child who presents with fever, burns, or dermatitis on the diaper region, old or new rib fractures found on lung graphy and long bone and epiphyseal corner fractures or fracture sequelae. Frequently, findings indicating physical abuse are overlooked at the time of presentation in the child who has various complaints, and the diagnosis is delayed (6–9).

Head Trauma Due to Abuse (Shaken Baby)

The Shaken baby syndrome is a special form of physical abuse and constitutes 95% of abuse-related child deaths or life-threatening outcomes. It is frequently observed under the age of 2 years and its incidence markedly increases under the age of 6 months. However, it should be known that it may occur up to the age of 5 years. Prematurity/low birth weight, babies with health problems, stepchildren, children born as a result of unwanted pregnancy, babies with colic (marked increase in the incidence) and bad tempered children (restless and bad-tempered babies and babies who cry a lot) constitute the risk group (8–10). It is generally implemented by the caregiver, and the typical findings include rupture of the dural bridging veins and subdural hematoma due to acceleration-deceleration movement related to severe shaking, diffuse axonal injury, retinal hemorrhage, pancreatic artery injury and resulting intra-abdominal hemorrhage. Excluding uncomplicated severe traumas (such as skull 8 fracture), 95% of intracranial injuries and 64% of all head injuries in children under the age of 1 year, are found to be associated with abuse. As the physical examination is normal in most cases, the diagnosis can be missed if not considered, and subdural hematoma is generally added to the picture (38–100%). If the bilateral subdural hematoma is found, the probability is very high. Sometimes, hemorrhage is not found, but brain edema is secondary to and an increased possibility of intracranial pressure is observed. Generally, spinal cord trauma and long bone, rib and spinous process fractures are also found concomitantly. Signs such as lethargy, vomiting, continuous restlessness, and poor feeding that may be observed in any viral infection, may generally lead to delayed diagnosis. However, there may also be more severe findings such as coma, convulsion and dyspnea. In case of suspicion, retinal and vitreous hemorrhages and especially retinal hemorrhages in both eyes are diagnostic.

In addition, finger pattern ecchymoses due to firm gripping movement and posterior costa fractures may accompany (8–12). Clinical findings are found in a wide spectrum, ranging from mild restlessness to loss of consciousness, depending on the severity of shaking and the child's age, and the prognosis is directly proportional to the severity (8, 11). In the differential diagnosis, intracranial hemorrhages occurring during delivery (NB asymptomatic, recovers in 4 weeks), genetic and metabolic diseases (Osteogenesis imperfecta and Menkes Kinky hair glutaric aciduria Type 1), hemorrhagic diathesis (prothrombin time, partial thromboplastin time, bleeding time, complete blood count, platelet count, fibrinogen, and fibrin degradation products), vascular malformations, diseases leading to increased intracranial pressure, electrolyte imbalances, and intracranial infections should be considered. A shaken baby syndrome is preventable and it is especially important to inform the parents who have risk factors about child development stages, stress management, and the particulars of caregiving (9, 10–15). In suspected cases, typical retinal hemorrhage is found. Therefore, a detailed fundoscopic examination helps make the diagnosis (11–15).

History Taking

An accurate and appropriate history is important in the diagnosis of child abuse. Especially, careful and detailed interviews should be performed with individuals who are obliged to look after the child. The child's growth and development, medical and social history, sibling history and if any sibling died or has any disease, should be interrogated and other causes such as accidents leading to injury, metabolic disorders and diseases should be eliminated (13–15). The contradiction between present lesions and history is a warning sign. It is frequently informed that the child has been injured as a result of an accident or by their peers/siblings at the time of presentation at the healthcare center, and there are discrepancies between the histories obtained from family members (11–16). The history given and the child's developmental stage should be primarily compared, and history should be obtained from the child himself/herself in a safe environment as well as obtaining a history from family members separately. The parents' reactions to the incident (severe injury-happiness, a small ecchymosis-extreme anxiety state, defensive attitude, interventions accusing healthcare workers, etc.) should be carefully monitored. The child may have fear of adults or may feel extremely close to adults. The history should be obtained carefully in cases of child injuries, and the history should be compared with the child's age group and developmental stage (10–13). While obtaining the history, making the person repeat the history and performing interrogation one by one may be helpful. As the most important exploiters are close family members, teachers and peers, obtaining history in relation with these individuals like making a conversation may be guiding.

For example:

"He/she fell from an armchair and his/her arm was broken" (frequently used especially for children aged between 0 and 3 years)

"He/she poured hot water, hit the iron while crawling-walking"

"His/her sibling pushed him/her and his/her leg was broken"

"He/she fell from his/her sibling's lap on the floor"

Physical Examination Findings in Children with Suspected Physical Abuse

The physical examination findings vary depending on the type and severity of trauma. Therefore, a complete physical examination should be performed (13–15). For example, detailed skin examination should be performed in addition to multisystem evaluation by removing the child's underclothes, diaper and socks in a 2-month-old child who presents with fever and is found to have ecchymoses with different shapes and dimensions or who presents with closed consciousness and a history of falling from the armchair. The child's self-care, developmental stages, language development and the family's expectations and attitudes should be evaluated (14–16). On physical examination, shaped ecchymoses, ecchymoses found on flexor surfaces, ecchymoses around the mouth, frenulum tears (smothering with hand), ecchymoses and burns on the genital region and soles, glove and sock pattern burns in the hands and feet, ecchymoses found behind the ears, tympanic membrane perforation and shaped ecchymoses (fork, iron, tongs, cigarette, etc.), rail-shaped ecchymoses should be examined in detail. Imaging findings such as metaphyseal corner fractures, rib fractures, sternum, scapula or spinous processes fractures, long bone fractures at different recovery stages in a baby who cannot walk yet, bilateral acute long bone fracture, vertebral corpus fractures or vertebral subluxation despite the absence of a history of severe trauma, finger bone fractures in a baby aged under 36 months, fractures as epiphyseal separation, severe skull fractures and/or unexplained subdural hemorrhages in addition to all these findings in infants aged under 18 months, intra-abdominal bowel perforation, liver laceration, pancreatic artery injury or unexplained intra-abdominal hemorrhages should raise suspicion (14–16).

A special form of physical abuse is the "Munchausen by Proxy" syndrome. In cases where parents produce a condition that does not exist in the child, "Munchausen by Proxy" syndrome should be considered. If the child has signs that cannot be explained, and these signs occur only in presence of parents, one should suspect this syndrome. In these cases, the child is harmed and these children most commonly present with diabetes, bacteremia, urinary tract infection, pneumonia, convulsions, and sudden infant death syndrome. The parent aims to take attention or gain an advantage rather than harming the child. This syndrome indicates the presence of serious psychological problems.

Investigations to be Ordered

The laboratory tests to be ordered should be decided according to the presentation of the child. For example, complete blood count, peripheral smear, biochemical tests, PT, and aPTT should be evaluated in a patient who presents with diffuse ecchymoses, while causes of malnutrition, metabolic investigations and other detailed laboratory tests should be performed in a patient who has growth retardation. Skeletal screening should be performed in a child who is thought to have been exposed to physical abuse, and evaluation in terms of old fracture sequelae, unrecovered fractures, malunion of fractures, and epiphyseal fractures should be performed (13–16). Intracranial imaging should be performed in children who have altered consciousness, coma, agitation, restlessness and sustained crying (6, 11–13, 16). Brain CT is recommended for assessment in the primary care setting especially in terms of subdural hemorrhage (12–16).

Consultations to be Requested

The clinical unit from which consultation is to be requested varies depending on the clinical findings (16). For example, neurosurgery consultation should be performed in a child who is found to have head trauma, orthopedics consultation should be performed in a child with an extremity fracture and ophthalmology and neurosurgery consultations should be performed a child with the suspected shaken baby syndrome (6, 12–16). Child psychiatry consultation should be requested to enable follow-up and treatment directed to long-term psychological effects of the abuse with psychological assessment (2–16). In addition, consultation to be requested from the Child Protection Unit, if present within the hospital, will enable a multidisciplinary approach toward the case and support clinicians in the stage of forensic and social declaration as well as helping to make the diagnosis of abuse by way of interviews with family members and the child in an appropriate setting. The necessary procedures should be initiated by submitting a social declaration to the Social Service Units which are found within the structure of hospitals. A social declaration can also be submitted by way of the Ministry of Family, Labor and Social Services Social Support Line (183) outside working hours (2, 16–18). In addition, forensic case declaration should be submitted by way of a forensic declaration form through law-enforcement officers within the hospital in centers that lack a Child Protection Unit, and the whole process should be reported to administrative authorities with an official report (clinical experience).

Informing the Family when Suspected

In cases where physical examination findings suggest physical abuse, the family should be informed that there is something wrong with the child and the condition should be examined, and investigations should be continued with blood tests and imaging (2, 16). Besides all these, it should be kept in mind that the most reliable persons for the child are the family members, the family should be informed at all stages as necessary, even they are the exploiters, and the child's feeling of confidence should be strengthened by giving the necessary explanations.

During Diagnosis

When a diagnosis of physical abuse is made or suspected in a child, medical care should be provided, all physical examination findings should be recorded in detail (dimensions, color, and shape of ecchymoses) and pictures should be taken, if possible (2, 16–18). The child should be rapidly delivered to a safe setting, the family should be informed as necessary, a social examination should be initiated by giving information to the hospital's social service unit (the Ministry of Family, Labor and Social Services Social Support Line should be reached at night, and during public holidays or if the social service unit is not accessible) and forensic case declaration should be submitted to law-enforcement officers (hospital police or police departments in the district, police crime line (155), military police crime line (156), or public prosecution office) (2, 18–22). The whole process should also be informed to the administrative authorities with an official report attached with a copy of the epicrisis and a copy of the forensic declaration form.

CONCLUSION

Child abuse causes psychological, behavioral, and social effects on children. It leads to negative effects at the highest level especially if it occurs in the 1st years. Significant responsibility falls on pediatricians on this subject. Pediatricians who follow-up children from the time when they are not yet socialized and are not able to express themselves, should evaluate their patients and families in terms of abuse at each visit. Domestic dynamics should be considered by determining the risks belonging to the family and child, the family should be given education on the necessary subjects, and the child should be monitored closely. The risks, that emerge in the changing social environment as the child grows, should be evaluated and families should be guided in this respect. Assessment in terms of child abuse should be performed at all stages in the child health follow-up process, and a multidisciplinary approach should be provided considering the child's interests in suspected cases. In a patient with suspected physical abuse;

- All stages should be carefully and meticulously planned in a multidisciplinary manner regarding the child's benefit
- A detailed history should be obtained and recorded, being judge should be avoided when taking the history and the fact that one is here for medical support should be emphasized
- Multi-system physical examination should be performed and all findings should be recorded in detail. If possible, pictures should be taken and videos should be made and stored
- The necessary laboratory tests should be requested, appropriate support should be provided by evaluating the child's immunization status, developmental properties and growth rate following acute medical support in terms of child health follow-up
- The psychological evaluation should be performed and access to the necessary treatment and follow-up should be provided
- The child should be kept in a safe place by providing the necessary treatment and medical support
- A social declaration should be submitted
- A forensic declaration should be submitted and all findings should be transmitted to judicial authorities as a report when necessary.

If there is suspicion, but the diagnosis is not definite, the patient should be followed up with repeated visits and the necessary precautions (health precautions, etc.) should be enabled by submitting the social declaration in patients who are kept outside follow-up. In the diagnosis and treatment of child abuse, responsible pediatricians should take not only a medical approach but also psychological, legal, and social approaches to protect children and to contribute to families', teachers', and children's behaviors by raising awareness in the society considering the harmful effects of child abuse.

Hasta Onamı: Yazılı hasta onamı bu çalışmaya katılan hastaların ailelerinden alınmıştır.

Çıkar Çatışması: Yazarlar çıkar çatışması bildirmemişlerdir.

Mali Destek: Yazarlar bu çalışma için mali destek almadıklarını beyan etmişlerdir.

Yazarlık Katkıları: Fikir – NYS, LQ, TTC; Tasarım – NYS, LQ, TTC; Denetmele – NYS, LQ, TTC; Kaynaklar – NYS, LQ, TTC; Analiz ve/veya Yorum – NYS, LQ, TTC; Literatür Taraması – NYS, LQ, TTC; Yazıyı Yazan – NYS, LQ, TTC; Eleştirel İnceleme – NYS, LQ, TTC.

Informed Consent: Written informed consent was obtained from the families of the patients who participated in this study.

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KAYNAKLAR

1. World Health Organization. World report on violence and health: Summary. Geneva 2002. Available at: https://apps.who.int/iris/bitstream/handle/10665/42495/9241545615_eng.pdf. Accessed Sep 20, 2022.
2. World Health Organization. World report on child maltreatment; 2017. Available at: https://www.who.int/docs/default-source/documents/child-maltreatment/child-maltreatment-infographic-en.pdf?sfvrsn=7d798249_2. Accessed Sep 20, 2022.
3. UNICEF. Türkiye' de çocuk istismarı ve aile içi şiddet araştırması raporu; 2010. Available at: https://www.unicef.org/turkiye/raporlar/t%C3%BCrkiyede-%C3%A7ocuk-istismari-ve-aile-i%C3%A7i-%C5%9Fiddet-ara%C5%9Ftirmasi-%C3%B6zet-raporu-2010. Accessed Sep 20, 2022.
4. Dağlı T, İnanıcı MA. Üniversiteler için hastane temelli çocuk koruma

merkezleri el kitabı. Ankara; 2010. Available at: https://humanistburo.org/dosyalar/humdosya/Universiteler%20Icin%20Hastane%20Temelli%20Cocuk%20Koruma%20Merkezleri%20El%20Kitabi.pdf. Accessed Sep 20, 2022.

5. Polat O. Tüm boyutlarıyla çocuk istismarı. İstanbul: Seçkin Yayıncılık; 2007. p. 23–58.
6. Kara B, Biçer Ü, Gökalp AS. Child abuse. J Child Health Dis 2004;47:140–51.
7. Pierce MC, Kaczor K, Acker D, Webb T, Brenzel A, Lorenz DJ, et al. History, injury, and psychosocial risk factor commonalities among cases of fatal and near-fatal physical child abuse. Child Abuse Negl 2017;69:263–77.
8. Flaherty E, Legano L, Idzerda S; Council on child abuse and neglect. Ongoing pediatric health care for the child who has been maltreated. Pediatrics 2019;143:e20190284.
9. Narang SK, Fingarson A, Lukefahr J; Council on child abuse and neglect. Abusive head trauma in infants and children. Pediatrics 2020;145:e20200203.
10. Lopes NRL, Williams LCA. Pediatric abusive head trauma prevention initiatives: A literature review. Trauma Violence Abuse 2018;19:555–66.
11. Barr RG, Barr M, Rajabali F, Humphreys C, Pike I, Brant R, et al. Eight-year outcome of implementation of abusive head trauma prevention. Child Abuse Negl 2018;84:106–14.
12. Klevens J, Schmidt B, Luo F, Xu L, Ports KA, Lee RD. Effect of the earned income tax credit on hospital admissions for pediatric abusive head trauma, 1995-2013. Public Health Rep 2017;132:505–11.
13. Lazoritz S, Baldwin S, Kini N. The Whiplash Shaken Infant Syndrome: Has Caffey's syndrome changed or have we changed his syndrome? Child Abuse Negl 1997;21:1009–14.
14. Duhaime AC, Gennarelli TA, Thibault LE, Bruce DA, Margulies SS, Wiser R. The shaken baby syndrome. A clinical, pathological, and biomechanical study. J Neurosurg 1987;66:409–15.
15. Pinto FC, Porro FF, Suganuma L, Fontes RB, de Andrade AF, Marino R Jr. Hemophilia and child abuse as possible causes of epidural hematoma: Case report. Arq Neuropsiquiatr 2003;61:1023–5.
16. Brewster AL, Nelson JP, Hymel KP, Colby DR, Lucas DR, McCanne TR, et al. Victim, perpetrator, family, and incident characteristics of 32 infant maltreatment deaths in the United States Air Force. Child Abuse Negl 1998;22:91–101.
17. Torwalt CR, Balachandra AT, Youngson C, de Nanassy J. Spontaneous fractures in the differential diagnosis of fractures in children. J Forensic Sci 2002;47:1340–4.
18. Leventhal JM, Edwards GA. Flawed theories to explain child physical abuse: What are the medical-legal consequences? JAMA 2017;318:1317–8.
19. Jones R, Flaherty EG, Binns HJ, Price LL, Slora E, Abney D, et al. Clinicians' description of factors influencing their reporting of suspected child abuse: Report of the Child Abuse Reporting Experience Study Research Group. Pediatrics 2008;122:259–66.
20. Berger RP, Sanders D, Rubin D; Commission to Eliminate Abuse and Neglect Fatalities. Pediatricians' role in preventing child maltreatment fatalities: A call to action. Pediatrics 2015;136:825–7.
21. UNICEF. Çocuklara kötü muamelenin önlenmesi: Bu konuda harekete geçilmesine ve kanıt toplanmasına yönelik bir kılavuz; WHO Publication; 2006. Available at: https://apps.who.int/iris/bitstream/handle/10665/43499/9241594365_tur.pdf?sequence=21&isAllowed=y. Accessed Sep 20, 2022.
22. Büken E, Yaşar ZF. Assesment of forensic children cases applying to the emergency service of Başkent University Ankara Hospital. Bull Leg Med 2015;20:93–8.