

Fatal child abuse-maltreatment syndrome; a case report

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Abstract: Child abuse-maltreatment syndrome can be described as child death due to repeated episodes of physical abuse and neglect. Here we present a case of child physical abuse and neglect causing death due to duodenal perforation. A five year old boy was reported to have stomachache occurring one day before death. He was admitted to a private health clinic where he was discharged after an analgesic injection. Because of increasing complaints he was applied to the same clinic, afterwards sent to an Emergency Department where he died during resuscitation. At autopsy, external examination revealed several traumatic injuries and two bite marks of different age, while internal examination revealed 500 ml of dirty yellowish-greenish free liquid in abdominal cavity and a perforation 0.5 cm in diameter of the duodenum wall. Insufficient parental supervision in spite of continuous traumas strongly indicates negligence or intentional abuse by parents. Additionally, insufficient medical follow up, besides; not disclosing the injuries on child's body adds medical malpractice aspect to this case.

Key Words: child abuse-maltreatment syndrome, physical abuse of child, child neglect, domestic violence, death

As a recently recognized entity, Child abuse-maltreatment syndrome involves repeated episodes of intentional trauma and negligence of a child, which can result in chronic consequences or death. This syndrome includes a combination of maltreatment types. Examinations of such cases reveal various types of injuries of different age. In most cases, healed older injuries and findings of negligence are accompanied by a recent fatal injury that is the immediate cause of death [1].

Inflicted traumatic brain injury is the leading cause of death due to child abuse, while blunt abdominal trauma takes place as the second commonest cause of death among abused children. Duodenal injuries secondary to blunt trauma are rare but generally life threatening [2-5].

A case of death due to child abuse-maltreatment syndrome with multiple types of maltreatment is presented because of its interesting history and dramatic findings accompanied by medical malpractice.

Case presentation

The presented case, a five-year-old boy, was previously diagnosed with mental retardation, attention deficit and hyperactivity disorder and had rehabilitation because of these issues. He had been followed up in a rehabilitation service until the family terminated the treatment. The subject was separated from his biological mother and had been living with his biological father, step mother and two step-siblings who

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were 6 and 8 year old. The case was reported to be very active, self mutilating and constantly fighting with siblings. Family members stated that a scalding injury had occurred on deceased's abdomen due to splashing hot tea. It was claimed that he had felt down from the sofa one day before death, which was alleged to be cause of severe abdominal pain and shortness of breath. He was taken to a private health clinic where he was examined by a nurse and diagnosed as having intestinal gas. Then, he was discharged after an analgesic injection. Father, on his own, gave him lacsative medication as he attributed the pain to a possible constipation. Two hours later, due to deterioration in clinical state the child was taken to the same health clinic where he had a second analgesic injection and was conveyed to emergency department of a hospital, but he died on the way.

At autopsy, external body examination of the deceased revealed that, there were several abrasions, ecshymosis in various colors representing different age what suggested continuous physical abuse. Several erosions, scars on the whole body and two bite marks on the right gluteal region were also noticed (Figure 1-2). The healed burn injury and ecchymosis (measuring 5x7 cm) on the abdominal wall were considerable. Additionally, there was an ecchymotic fissure on the anal mucosa. During internal examination, brain was severely edematous and 1550 g in weight. There were several petechiae on the pleura and epicardium. Five hundred ml of yellowish-greenish liquid and adhesions between bowels were noticed in abdominal cavity. Furthermore, a perforation, 0,5 cm in diameter, affecting the whole wall of duodenum was noticed (Figure 3).

Toxicological analyses and anal swap examination did not reveal any abnormalities. Histopathological examination revealed a mix-type inflammatory cell infiltration, granulation tissue, necrosis and peritonitis in the perforation site, which was not specific for any infection agent. Consequently, death was attributed to duodenal perforation due to child abuse-maltreatment syndrome.



Figure 1. Multiple abrasions and ecchymoses on the face and neck



Figure 2. Bite marks, at different ages, on gluteal region



Figure 3. Necrosis and perforation in duodenum

Discussion

The common risk factors for child abuse are described in the literature as: low socio-economic level, step father/mother, constellation of family, drug/alcohol addicted parent, young mother, low educational level and domestic violence [6,7]. Furthermore, there are certain risk factors concerning victims such as bad temper, constant crying, hyperactivity, behavioral disorders, mental or physical anomalies and chronic diseases [8]. It is reported that child having physical or psychiatric problems are abused more frequently [9]. In accordance with the literature, the risk factors such as mental retardation, attention deficit and hyperactivity disorder, existence of step mother and step brothers were present in the presented cases.

As a component of child abuse-maltreatment syndrome, physical abuse is maltreatment involving acts intended to cause pain and injury. On the other hand injuries that occur due to child neglect by parents/caregivers can be defined as indirect physical abuse. Ten percent of child abuse cases is reported to involve various types of burn injuries [8,10,11]. Since abdominal wall is very thin in children, a blunt abdominal trauma can result in injury and perforation of bowels and consequently in peritonitis and death [12,13].

More than one-third, 35.2%, of fatalities has been reported to be caused by multiple forms of maltreatment. In present case, there were several traumatic injuries of different ages on irrelevant parts of body and various types of injuries such as ecchymosis, skin abrasions, bite marks, burn scars that were indicative of the child abuse-maltreatment syndrome. In such cases, information obtained from medical history provides a basis for the diagnosis. Generally, there are contradictions between family members' statements and the anamnesis is not enough to explain the physical findings. The parents or caregivers usually accuse the siblings of the victims or the victims themselves [3,14]. In our case, the injuries on the face and extremities were alleged to be accidental as a result of hyperactivity, self mutilation of the victim and fighting with step siblings. However, questions about traumatic injuries on penis, scrotal region, abdominal wall, burn scar and bite marks on the gluteal regions were not given a convincing explanation. Considering possible accidental causes for certain injuries the negligence of parents was suggested. Furthermore, there was a delay in intervention as the family has not applied to a hospital because of the severe stomach ache one day before death. One day following onset of the ache they applied to a private health clinic with no doctor, instead of a fully equipped hospital.

In Turkey, all health care providers are obliged to report the signs or findings indicative of any crime. Furthermore, child abuse cases are recorded and reported as legal issues all around the world. However; in the present case, the nurse working in the private health clinic, overstepped her authority/competence by setting diagnose and giving treatment, which is not common in Turkey. Apart from the infringement mentioned above she took no account of the injuries covering whole body of child. As a result medical malpractice aspect is to be added to the presented case.

The child had not undergone any diagnostic process nor had been given appropriate medical treatment because of continuous physical abuse/trauma. Furthermore, the rehabilitation process of the child was intentionally terminated by family members. Family members could not explain traumatic findings on external examination. Respectively, due to autopsy findings the case was diagnosed as fatal child abuse-maltreatment syndrome.

Conclusion

In conclusion, health care providers should examine the child and proceed with detailed anamnesis considering child abuse-maltreatment syndrome in children with small bowel/duodenal injuries of unclear etiology. Likewise, children who are victims of child abuse and maltreatment should undergo a complete abdominal examination to rule out possible duodenal or other abdominal injuries.

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