

DOI: 10.4274/tpa.1161

Twins abused by their father

Celal Bütün, Fatma Yücel Beyaztaş, Resmiye Oral*, Cengiz Güney**, Derya Büyükkayhan***, Yutaka Sato****

Cumhuriyet Üniversitesi, Department of Forensic Medicine, Sivas, Turkey

**University of Iowa, Department of Pediatrics, Iowa, ABD*

***Cumhuriyet University, Department of Pediatric Surgery, Sivas, Turkey*

****Haseki Education and Research Hospital Clinics of Pediatrics, Istanbul, Turkey*

*****University of Iowa, Department of Radiology, Iowa, ABD*

Summary

Child abuse and neglect is an important public health problem that recurs unless it is recognized early and protection measures are implemented timely. Multidisciplinary collaboration of related professionals is of paramount importance in assessing and managing cases of child abuse and neglect.

The father of the twins presented in this paper who was employed in odd jobs as the sole bread-winner of his family of five and abused his wife also physically abused his twin children under one year of age. Although the physicians reported these children to law enforcement, the family concealed the abuse and neither the physicians nor the law enforcement reported this family to child protective services. As a consequence, a picture of recurrence of abuse with a cumulative negative medico-social outcome was observed. Since the mother declined to testify on the father abusing his children during the court proceedings, the father returned to the family after a brief incarceration. Child protective measures were established only after the forensic physician interfered with the proceedings on a voluntary basis.

This presentation aimed at reviewing the risk factors related to abuse and associated findings and assessment steps of abuse. In addition, these cases confirmed that every child abuse case that is missed by physicians and mismanaged legally has the potential to lead to severe, chronic abuse. Therefore, it is important that the family, law, healthcare services, and social services should collaborate in diagnosis and management of these cases. (*Turk Arch Ped 2011; 46: 337-41*)

Key words: Child abuse, father, physical abuse, twins, violence

Introduction

Physical, psychological and social outcomes which emerge as a result of inadequacy of adult individuals to provide health and well-being of the children whom they are obliged to look after or behaviors of the adults which will actively disrupt the children's physical and emotional health are defined as child abuse and neglect. Although it is a common and important health problem, its diagnosis and collaboration with the related specialities are generally inadequate. Insufficient proofs, wrong information and cultural and traditional values may lead to ignoring of abuse (1-3). Child abuse and neglect can emerge in very different ways ranging from growth retardation due to inadequate feeding to emotional abuse by verbal statements and even to severe physical and sexual abuse (2-4). In this case report, we emphasized the significance of disciplined approach and collaboration of legal, healthcare and social institutions in diagnosis, treatment and protection of the twins abused by their

own father physically and the fact that each missed case of abuse can come up as a more severe case in time.

Cases

Twin cases with a history of battering by their father were reported with a forensic report prepared by the physicians of the emergency department of a hospital. They were sent by the prosecution office to a university forensic department for a definite report to be prepared in accompany of a police officer, their mother and their grandmother. During the interview performed at the department of forensic medicine, the mother reported that the father who performed physical violence on her before the children were born also performed physical abuse on the children after their birth.

Social history taken from the mother revealed that the mother was 26 years old, had an education of elementary school, was a house-wife and bound to the social security

Address for Correspondence: Derya Büyükkayhan MD, Haseki Education and Research Hospital Clinics of Pediatrics, Istanbul, Turkey

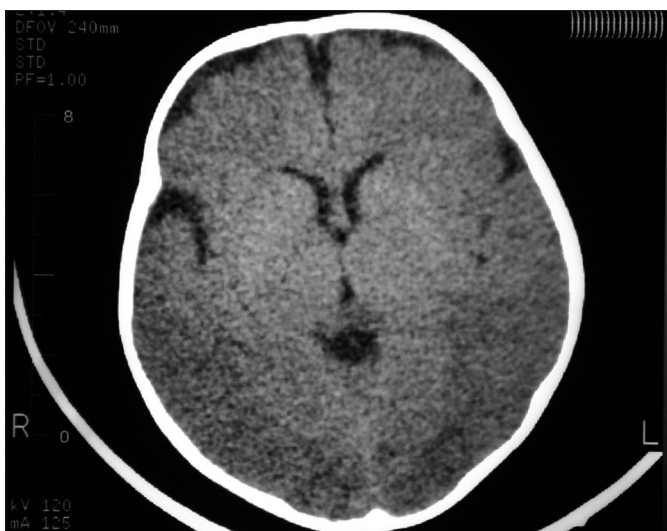
E-mail: deryabuyukkayhan@hotmail.com **Received:** 01.22.2010 **Accepted:** 06.28.2010

Turkish Archives of Pediatrics, published by Galenos Publishing

institution, had no history of illness, used iron drug for anemia and had a smoking habit. It was found that the mother gave birth to her twins with cesarean section at the end of the 35 weeks, both babies were at the 50th percentile in terms of height and weight according to the gestational age, case 1 who had a hospital record had a body weight and height at the 10-25th percentile at six months of age and a head circumference adjusted for gestational age at the 10th percentile. Since case 2 had no history of hospitalization, measurements after birth could not be evaluated. The father was found to be 34 years old, had an education of elementary school, had no regular work, was the sole bread-winner of his family of five and had no special finding in his personal history.

File Evaluation in the Department of Forensic Medicine

The first period: Case 1 presented to a hospital for the first time at the age of 6 months. The physician who saw the subject suspected of child abuse because of the signs and gave a report to prosecution office and referred the subject to a university hospital on the same day for further evaluation. Case 1 presented to the emergency department of the university hospital accompanied by the parents. The parents reported that when the child was brought home from the grandmother, he had complaints including nausea and vomiting on the same day and when his general well-being deteriorated he was brought to the emergency department. Physical examination performed on the same day revealed the following: poor general status, closed consciousness, decerebrated response to painful stimuli, bilateral flexor planter responses, respiratory distress, bradypnea, coarse crackles from place to place, a rhythmic and tachycardic heart, a tense and rigid abdomen, a new laceration of 3 cm in the left of the umbilicus, a few ecchymoses of 1x1 cm in the frontal region and diaper rashes in the genital region.



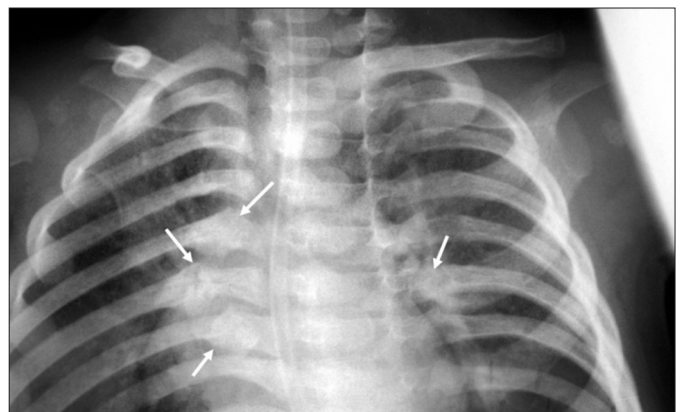
Picture 1. Bilateral parieto-occipital brain edema on Brain CT of subject 1 (GY).

Laboratory findings supported renal and hepatic damage, electrolyte imbalance, respiratory acidosis and anemia. Computerized Brain Tomography (CBT) revealed a linear fracture in the left occipital region, separation in the suture and edema in the parieto-occipital paranchyma bilaterally (more prominent in the left compared to the right) (Picture 1). In the emergency department, neurosurgical, pediatric and pediatric surgical consultations were requested.

The history revealed that he was irritable for four days and his nutrition was disrupted one night ago. Physical examination revealed ecchymotic areas in both frontooccipital regions with old ecchymoses in the left, a laceration with a length of 2 cm and a width of 0.1 cm on the left costal curve, diffuse napkin dermatitis in the genital and anal region, hyperactive deep tendon reflexes in the lower and upper extremities, decreased skin turgor and decreased tonus. Hospitalization was recommended with the diagnoses of meningeal irritation, general body trauma, acute renal failure and dehydration. Diffuse fluid was found on abdominal CT and the child was hospitalized in the pediatric surgery ward with the diagnosis of general body trauma. To examine abdominal free fluid a foley catheter was inserted under scopy and contrast material was given. The contrast material was observed to distribute inside the abdomen. Bladder perforation was diagnosed and the bladder was repaired with surgical intervention. On orthopaedic consultation requested for child abuse syndrome while being hospitalized in the pediatric surgery unit, old fused fracture lines were found in the right 5, 6 and 7th costae and the left 6th costa localized paravertebrally/posteriorly on chest graphy (Picture 2). Skeletal screening was not requested and it was not stated that this case could be related to child abuse. Therefore, it was not recommended to give a report to the prosecution office.

As a result of medical and surgical treatment performed in the pediatric surgery ward, all blood values except for anemia returned to normal limits. The patient was discharged with his physical findings being improved without reporting the prosecution office or Social Service Directorship.

The second period: 5 months later (at the age of 11 months) the mother and the twins presented again to a hospital with a



Picture 2. Old fracture lines found in the right 5, 6 and 7th costae and the left 6th costa localized posteriorly on postero-anterior chest graphy of case 1 (GY).

history of falling down from a level of approximately 1.5 meters. With the signs of case 1, with the personal history and with the reporting of the mother that the father abused the children a pre-report (transient report) was written in the emergency department of the hospital.

Physical examination of case 2 performed revealed that the patient's general status was well and consciousness was open. Edema with a diameter of 3 cm was found in the right side of the frontal region and no other traumatic finding was observed except for edema. The patient was discharged with appropriate recommendations.

Case 1 was referred to the emergency department of a university Hospital on the same date. On physical examination performed in the emergency department, general status was moderate, the consciousness was open, interest in the environment was normal, the left lower extremity was in the position of abduction and external rotation and tenderness and deformity was felt by palpation. The graphy revealed a displaced fracture line in the left femur. Blood tests revealed anemia and the patient was followed up. On pediatric surgery consultation, it was reported that the father threw the patient to the sofa while playing with the baby and the baby's leg was fractured accidentally. System examinations were normal except for femur fracture. Urgent ultrasonography revealed no paranchymal organ injury, but free fluid was observed around the liver and thoracic and abdominal CT's were found to be normal. For treatment of femur fracture the patients was hospitalized in the orthopaedic ward and Bryant traction was performed. Closed reduction and pelvipedal plaster cast was applied. The patient was discharged.

Both subjects were referred to the Department of Forensic Medicine to obtain a definite forensic report. Case1's physical examination revealed that the pelvis, abdomen and left lower extremity were in plaster cast. No external traumatic signs were found on other areas of the body. The medical history showed that the father kicked, bit and abused the child by pulling his head to the legs. All laboratory tests were normal except for mild anemia. Case2's physical examination performed and revealed no external traumatic sign. No pathology was found in the laboratory tests except for anemia.

Evaluation in terms of Forensic and Social Services

An investigation was started with the report given to the prosecution office as a result of presentation of case 1 to hospital. However, in the scope of this investigation, the prosecution office did not arrest the father at this time even though there was more severe injury and life threat and the file related to the report reached the court 10 months after the report. No report was given to the Social Services Directorship.

Following the report during the presentation of the subjects to the hospital and definite forensic reports arranged in the scope of the second investigation started by the prosecution office a research was started on the subject. According to this, just after the reporting a legal action was filed by the 86,87, 53

and 63rd items of the Turkish Criminal Law because of the crime of intentional injury and the father was arrested. However, after a while the father was dismissed because the mother changed her statement and the lawsuit is still continuing. After the father was dismissed, he returned to the mother and twins.

When the file related to the first reporting reached the same court, the judge sent a report to the Social Services Directorship for urgent care and protection caution for the children according to Child Protection Law. When the Social Services Directorship was interviewed it was learned that the necessary examinations were started, the children were not primarily taken away from the family, financial help was given, caution was requested from the family court because of intra-familial violence and the examination was continuing. The department of Forensic Medicine sent a recommendation letter to the Court and Social Services Directorship for evaluation of psychologic health of both parents and for providing the parents to participate the parentship education program and child safety education program organized by the Social Services Directorship.

Discussion

The processes of abuse experienced by the 11 months old twins who were abused by their own father and who were presented in this study reveal what kind of defects are present in the professional response to child abuse on the clinical, social and legal platforms. Therefore, the significance of multidisciplinary collaboration and increasing the awareness of people who work related to this subject in diagnosis, treatment and protection of these children is emphasized.

According to the data of a study performed in 1993 in USA approximately 1% of children are abused and 1.5% are neglected (5). In a study performed in 50473 children from different provinces of Turkey, the frequency of physical punishment and related problems were examined and approximately 62.60% of children were found to be exposed to physical punishment. Thus, referring to physical punishment as a discipline method in our population in childhood education is used with a higher rate compared to other discipline methods (6). In spite of this fact, the practice of reporting of abuse in our country has still not reached the necessary level despite legal arrangements. The two children in this study were presented in front of healthcare workers at the period when they were abused. Although the twin mate abused when he was 6 months old clearly had the signs of "battered child syndrome" and the physicians suspected abuse and reported this, child protection services were not started, since the legal procedures were not performed at the necessary speed and the twins returned to the healthcare institution with abuse.

The sad point in terms of the healthcare worker in this case is that the case was not noticed again for the costal fracture found in the twin mate followed up with the first picture of severely battered child syndrome. However, costal fractures are among the most specific fractures for abuse along with metaphyseal fractures, vertebral spinous process fractures, sternum fractures and scapula fractures (7). If how severe an

abuse was indicated by the other injuries in addition to costal fracture during the first hospitalization of case 1 were reported to the prosecution office with a second notice, the legal system which works very slowly and insensitively would be provided to perceive the severity of the event and chronic abuse would be prevented. This shows what kind of a defect is being talked about for healthcare workers in the subjects including suspicion, diagnosis and reporting in terms of education, awareness and organization (3). When this defect was noted by the authors of the publication in the process of the definite report and preparation for publication of these cases, the workers in the departments of forensic medicine, pediatric surgery, pediatrics, neurosurgery and orthopaedics were activated and a project for increasing professional awareness was initiated in the context of in-service education of university and regional healthcare workers.

The diagnosis of abuse starts with suspicion as in any area of medicine. It is difficult to diagnose the cases if the possibility of child neglect and abuse is not considered in the differential diagnosis (8). The first observations suggesting child abuse should be the risk factors related to child abuse. It is known that especially neglect and physical abuse occur more frequently in the low socioeconomic status segments. Single parent, intrafamilial incompatibility of temperament/violence, alcohol or narcotic addiction of the parents, psychological or physical health problems, unemployment and social loneliness are the frequently encountered risk factors in the anamnesis (9). In addition, physical or mental disease or behavioral disorders in the child can also be considered as risk factors of child abuse (10). In the family presented, twin pregnancy, premature birth and growth delay as well as low socioeconomic status and intrafamilial violence were observed to be significant risk factors.

Since child abuse emerges based on various risk factors, it is an indication of familial dysfunction. If a missed abused child returns to the family without any rehabilitation, he/she will be subject to reabuse because of familial dysfunction on the background. Levy (11) and Fluke (12) reported that child abuse overlooked by healthcare workers will recur with a rate of 5-37% and 9% of these overlooked cases will be exposed to fatal abuse. The twins presented in this study required medical care by being reabused in 5 months which was compatible with the literature.

1/3 of physically abused subjects are under the age of 6 months, 1/3 are between 6 months and 3 years and 1/3 are older than 3 years. Especially in children below the age of 3 years, physical abuse should definitely be considered, if the skeletal system, soft tissue and internal organ trauma are found (5,13). The age of the twins presented in this study being under the age of one and presence of multiple bone fractures, old and new fractures and multiple internal organ damage in case 1 who was exposed to multiple physical abuses indicated a typical and severe child abuse case compatible with the literature information.

The second step in the diagnosis is a comprehensive interview with the family and trauma history and the child's medical history. Contradictions and disconnections in the history or contradictions in the histories given by different people should be noted. Thus, the physician can decide if the

trauma history given explains the findings by comparing the child's clinical and radiological findings and the history of trauma and the child's development status. If the history of trauma is incompatible with clinical findings mechanically or in terms of the severity of the picture, intentional trauma or abuse should definitely be considered in the etiology. All physicians should be able to differentiate accident-intention by evaluating the history, injury mechanism and the developmental level of the child (14). In the evaluation of the subjects presented in this study, the mother, the father and the grandmother who lived in the same house gave different histories which were not compatible with the findings to hide the event. The physicians noted this contradiction and reported the child abuse, but did not send a second notice about the new findings which emerged during further evaluation. This shows the defect of education in management and reporting of child abuse which can present with very complex findings.

When trying to determine the etiology of trauma, it is very important to know the relation between certain injury types and abuse. In the cases presented in this study, skull fracture, brain edema, ecchymoses and lacerations on the skull and body skin, old paraspinous costal fractures, liver damage and bladder perforation with unknown etiology were observed in the first twin mate in the first period. In the second period, ecchymoses and femur fracture were observed in case 1 and ecchymoses with different ages were observed in case 2. The findings with different ages of healing involving multiple organ systems observed during the first hospitalization of case 1 constitute a very specific picture for child abuse. Medical neglect by the family was also present in the case, because no referral for old costal fractures was made.

When medical notification is made and the event is reflected to the prosecution office, significant steps should be successfully completed for child protection function. A notification of abuse where the physician reports the suspicion of abuse with the justifications will strengthen the prosecutor

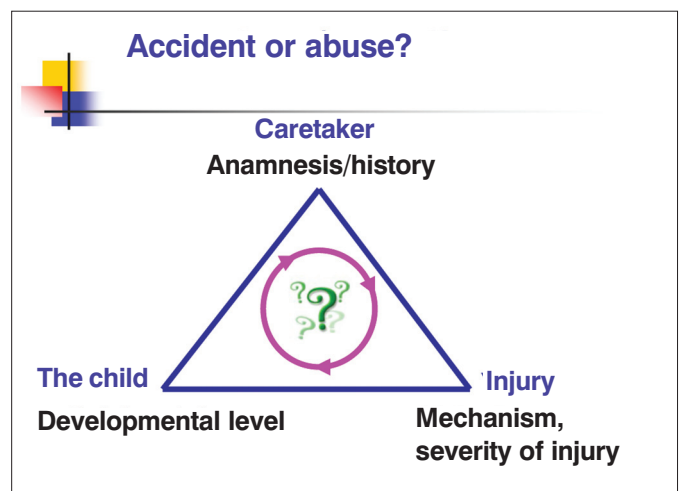


Figure 1. When evaluating the etiology of injury in children, abuse should be suspected, if incompatibility is present between any of the two: the history, injury mechanism and the child's developmental level.

and the judge in terms of legal protection and criminal decisions and will provide child protection to be performed in the most efficient way (15). During all these periods of abuse, the prosecution office was notified in accordance with the law, but no notification was made to the Social Services Directorship. As noted, the prosecution file reached the court 10 months after the first notification and the court notified the Social Services Directorship one year after the first event with the individual intervention of the authors of this study. Thus, the children were exposed to recurrent abuse in the dysfunctional family environment, since each of the three institutions did not notify the Social Services Directorship early enough. In addition, in the legal process after the second period, when the mother withdrew her complaint in the context of possible intrafamilial violence, the prosecutor released the father and allowed him to return to the family. This put the children under continuous risk. However, if the physicians notified the Social Services Directorship in parallel to the notification to the prosecution office, chronic abuse could be prevented, the familial background of abuse could be abolished and the parents could be rehabilitated in terms of intrafamilial violence. However, the forensic medicine specialist individually communicated with the prosecutor and the judge and provided child protection measures to be taken, when he learned that the forensic examination entered a risky way for children.

Although these subjects could be protected as a result of the individual efforts of related physicians, it has been once again displayed that related laws should be changed in terms of public health politics. As clearly shown, the fact that the notification authority is assigned to be the prosecution office in the law is not a guarantee for child protection. However, the approach to child abuse and neglect should carry a point of view of rehabilitation. Therefore, the notification authority in countries where modern child protection systems have been instituted is the institution in charge of Social Services. The Social Services Institution reports criminally important cases to the police and prosecution office (2,16). Thus, child protection measures are taken in the early stage, treatment and rehabilitation services are given in the most rapid way to the abused individuals and the law enforcement officers are occupied by a very small portion of the cases. Conclusively, changing the child protection law by assigning the Social Services Directorship as the primary notification authority and letting the prosecution office notification to the Social Services Directorship will be the most modern approach which is the method performed in the whole world.

Inter-institution communication is another significant factor in successful management of these cases. Most of these cases in Western countries are examined in centers where physicians, social service specialists, psychologists and even law enforcement officers work under the same structure called child protection center or child protection clinic. Thus, both medical and legal processes are performed in the fastest way (16). In this way, all cases are examined similarly and the most accurate reports are prepared in a frame of protocol before injury healing occurs. However, the evaluation of the cases presented in this study for definite report was done 18 days later in the department of Forensic Medicine, after the first notification.

During this period, all superficial injuries healed. In addition, it was not recognized legally that a chronic abuse process was experienced following the first period of abuse which carried a great vital threat. However, the child protection act was provided to be more functional by interviewing with the judge, prosecutor and social service specialists. These cases show how important it is that especially forensic physicians consider all cases and their files which they evaluate as a whole.

Conclusively, good knowledge of the physicians who have ethical, moral and legal responsibilities in child abuse and especially of pediatricians who confront mostly with pediatric patients on the findings of child abuse and notification to both to the prosecution office and the Social Services Directorship in case of suspicion and multidisciplinary work in collaboration with law enforcement services and the Social Services will bring up the best child protection outcome. Otherwise, negative outcomes carrying vital significance will emerge, when mild findings are overlooked and notification to the appropriate authorities are not made.

References

1. Polat O. Çocuk ve Şiddet. İstanbul: Der Yayınları, 2001; 85-7.
2. Child Abuse: A guide for mandatory reporters. (15.5.2009) http://www.dhs.state.ia.us/policyanalysis/PolicyManualPages/Manual_Documents/Master/comm164.pdf
3. Starling SP, Heisler KW, Paulson JF, Youmans E. Child abuse training and knowledge: a national survey of emergency medicine, family medicine, and pediatric residents and program directors. *Pediatrics* 2009; 123: 595-602.
4. Davidson DA. Physical abuse of preschoolers: identification and intervention through occupation therapy. *Am J Occup Ther* 1995; 49: 235-43.
5. Kara B, Biçer Ü, Gökalp AS. Çocuk istismarı. *Çocuk Sağlığı ve Hastalıkları Dergisi* 2004; 47: 140-51.
6. Bilir Ş, Arı M, Dönmez MB, Atik B, San P. Türkiye'nin 16 ilinde 4-12 yaşlar arasındaki 50 473 çocuğa fiziksel ceza verme sıklığı ve buna ilişkin problem durumların incelenmesi. *Aile ve Toplum Dergisi* 1991; 1: 53-66.
7. Lit-Kleinman P. Skeletal trauma: general considerations. In: Kleinman P (ed). *Diagnostic imaging of child abuse*. St. Louis: Mosby, 1998:9.
8. Vatandaş Ü, Duran R, Yolsal E, ve ark. Pediatik acilde çocuk örnelemi ve ihmali olasılığını akılda tutalım. *Türk Pediatri Arşivi* 2004; 39: 120-4.
9. Ayvaz M, Aksoy MC. Çocuk istismarı ve ihmali: ortopedik yönleri. *Hacettepe Tıp Dergisi* 2004; 35: 27-33.
10. Albert MJ, Drvaric DM. Injuries resulting from pathologic forces: Child abuse. In: Mac Ewen G, Kasser JR, Heinrich SD, (eds). *Pediatrics fractures: a practical approach to assessment and treatment*. Baltimore: Williams & Wilkins, 1993: 388-400.
11. Levy HB, Markovic J, Chaudhry U, Ahart S, Torres H. Reabuse rates in a sample of children followed for 5 years after discharge from a child abuse inpatient assessment program. *Child Abuse Negl* 1995; 19: 1363-77.
12. Fluke JD, Yuan YY, Edwards M. Recurrence of maltreatment: an application of the National Child Abuse and Neglect Data System. *Child Abuse Negl* 1999; 23: 633-50.
13. Rimsza ME, Schackner RA, Bowen KA, Marshall W. Can child deaths be prevented? The Arizona Child Fatality Review Program experience. *Pediatrics* 2002; 110: e11.
14. Oral R, Özer E. SBS-Shaken Baby Syndrome Workshop Program, W16- Hall 5 (A6). 15 October 2009. IV. Mediterranean Academy of Forensic Sciences Meeting. October 14-18, 2009, Antalya.
15. Berkowitz CD. Child abuse recognition and reporting: supports and resources for changing the paradigm. *Pediatrics* 2008; 122 Suppl 1: 10-2.
16. Goad J. Understanding roles and improving reporting and response relationships across professional boundaries. *Pediatrics* 2008; 122 Suppl 1: 6-9.