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Idiopathic thrombocytopenic purpura and physical child abuse: a case report

To the Editor,

Physical abuse of children can be diagnosed more easily compared to other cases of abuse. On the other hand, difficulties may be experienced in the diagnosis in cases where multidiciplinary evaluation is not made.

A 8-year-old girl with immune thrombocytopenic purpura (ITP) who had ecchymoses on the body and a history of falling in the school was diagnosed as physical abuse as a result of evaluation by the departments of pediatric psychiatry and forensic medicine. We decided to discuss this subject to draw attention to the significance of the differential diagnosis, what should be done in the diagnostic process and the need to question physical abuse in children with bleeding-clotting disorders.

On the first visit, our patient stated that she fell in the school two days ago, the wounds on her face were caused by falling and the other wounds on her body were caused by biting and scratching by her sister.

The patient and her family were interviewed for four times. On the second visit, the patient stated that the ecchymoses on her face were not caused by falling, but by slapping by her mother who was angry with her because she was naugthy. She explained that the bite marks and the lines on her body were made by her sister. She stated that her mother slapped her now and then when she misbehaved.

On the interview made with the parents, the patient was described as a very active, disobedient child. The mother stated that she frequently warned her daughter because she did not studied and misbehaved. In addition, she stated that her 3.5-year old daughter was also very active and disobedient, it was very difficult to handle her both daughters and therefore she sometimes bit them. As a result of the interviews it was thought that the parents had mental retardation and the mother had difficulty in controlling her anger.

On physical examination, a purple ecchymosis with a size of 1x2 cm on the skin of the upper part of the right cheekbone, an ecchymosis with a size of 3x2 cm on the upper part of the left cheekbone extending to the lower part of the eye and nasal root with irregular borders were observed. This ecchymosis was combined with an dark brown ecchymosis with a size of 2x0.5 cm with a shape of concave crescent and the sclera of the right eye was completely hemorrhagic with more intensity on the medial side. On different parts of the body, petechial bleedings and lacerations were observed and an area of ecchymosis on the lateral part of the left shoulder with teeth marks on it with a color of maroon in the center and yellow-green in the periphery was found.

Pediatric hematology consultation revealed that the patient was being followed up with a diagnosis of chronic ITP and therefore continious ecchymoses on the body was an expected condition.

Medical file evaluation revealed that the patient was being followed up because of ITP for 2 years and she had a history of multiple accidents and beating by her sister and friends. In the 7th month of follow-up, child abuse was considered, since the ecchymoses were on atypical parts of the body.

When the disease and history of the patient were evaluated, it was commented that the ecchymoses on the body might be caused by mild colliding and scratching by her sister and the bite mark might be caused by biting by her sister.

When the localization and extension of the ecchymoses on the right and left cheekbone and the bleeding in the eyes were considered, it was commented that the ecchymoses could not be caused by falling in the school, but could be caused by slapping by her mother.

On psychiatric evaluation, attention deficit hyperactivity disorder (ADHD), specific learning difficulty and borderline intelligence level (IQ:72) were diagnosed. It was found that both sisters showed ADHD symptoms and had related behaviour problems and the parents experienced inadequacy in solving these problems.

As a result of all the assessments, the findings of the patient suggested that the child might have been exposed to physical abuse.

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Physical abuse is a significant public health problem which starts with injuries with gradually increasing severity and might lead to persistent physical and mental disorders, growth failure and mortality.

Immune thrombocytopenic purpura is the most common reason of acquired thrombocytopenia in the pediatric age group (1). It has been reported that hematologic diseases are found in 16% of the cases where child abuse is considered (2,3). Lesions caused by bleeding disorders can be confused with traumatic ecchymoses.

The most important step in the diagnosis of physical abuse is considering child abuse. During evaluation of the child detailed history questioning presence of etiologic factors related to physical abuse, the patient's attitude and behavior, family-child relationship, the characteristics of the history taken from the child and the family, pscyosocial and medical history, familial history including bleeding disorders and previous injuries and accidents should be taken (4,5,6).

Etiologic factors are an important warning for the clinitian in terms of physical abuse (3). In our patient, etiologic risk factors including low socioeconomic level of the family, limited mental abilities of the parents, lack of support by the father for child care and housework and low impulse control in the mother were notable (3,7,8,9).

It has been reported that the risk of exposure to physical abuse is increased in children with chronic behavioral and physchologic problems (7). Presence of the diagnoses of ADHD, specific learning difficulty and borderline mental ability may be considered as risk factors related to the child.

History and observations related to the relationship between the family and the child may reveal many behavior patterns which might arouse suspicion in terms of physical abuse. A marked delay in seeking medical care, a history of multiple traumas, inconsistent reaction of the parents compared to the severity of injuries, insufficient or inappropriate explanations for injuries, inconsistent history about the injuries and the nature of the explanations of the child made in a setting where she felt safe aroused suspicion in terms of physical abuse (10).

In children with bleeding disorders, inability to differentiate non-accidental injuries and making a wrong diagnosis are significant risk factors in terms of the child's health (2). In our patient, the lesions were initially related to bleeding disorder and accidental injuries and physical abuse was ignored.

Ecchymoses observed in child abuse cases are also the most common signs of bleeding disorders (11). In the differential diagnosis of ecchymoses, the child's age and development, localization and characteristics of the ecchymoses are important elements (12). Accidental ecchymoses most commonly develop on the knee and the anterior part of the tibia. They may also be observed on the prominet area of any bone including the forehead, hip, forearms and spine (13). Ecchymoses on the arms, the middle and posterior parts of the thigh, hands, chest and abdominal region, face, cheeks, ears, neck and genital region cause suspicion of physical abuse. Ecchymoses caused by guns and shaped objects suggest physical abuse (11,12,14).

To make an accurate diagnosis of abuse enough time should be spared for the patient and physical and mental examination and radiologic evaluation and laboratory investigations should be performed (3). The diagnosis of immune thrombocytopenic purpura is made by history, physical examination, complete blood count and differential diagnosis with other causes of thrombocytopenia (15).

Although it was stated once that the localization of the ecchymoses was atypical in the medical file of our patient, a differential diagnosis was not made, since forensic medical examination was not performed. Abuse and neglect should be interrogated in cases of recurrent fallings and collidings. Multidiciplinary evaluation should definetely be made in these cases.

It should be kept in mind that psychologic symptoms may be present in children who have been exposed to physical abuse (16,17). Although there was no psychologic pathology suggesting phyical abuse in our patient, etiologic factors related to physical abuse were found during the interviews. It was observed that the child gave a more realistic history after establishement of a reliable relation.

All children with a lesion on the body which might have been caused by trauma should be evaluated considering physical abuse. The differential diagnosis is very significant not only in terms of treatment plan, but also in terms of medical problems which might arise in the future and in the social and legal context.

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