Acute abdominal pain as a manifestation of physical violence in an infant: alert to pediatricians

Dor abdominal aguda como manifestação de violência física em lactente: alerta aos pediatras

Dolor abdominal agudo como manifestación de violencia física en lactante: alerta a los pediatras

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ABSTRACT

Objective: To alert pediatricians and pediatric residents on the possibility of child abuse by reporting a clinical case.

Case description: An 18 month-old infant was brought to the Emergency Department due to abdominal pain and vomiting for 48 hours. Abdominal examination revealed two holes and a small hardened mass. An abdominal X-ray showed three metallic objects. Two sewing needles and one nail without a head were removed from the abdominal cavity by laparotomy.

Comments: Diagnosis was performed in the second medical care, probably because the intentional injury had not been considered in the first visit. Physical violence is a differential diagnosis to be considered in the presence of abdominal pain in children. It is worth noting the importance of improving pediatric resident training, and also of pediatricians in general, in relation to the approach of child abuse, enabling them to use adequate care in cases of violence.

Key-words: battered child syndrome; abdominal pain; internship and residency; education, medical.

RESUMO

Objetivo: Alertar os pediatras e residentes de Pediatria quanto à possibilidade da ocorrência de violência contra a criança por meio do relato de um caso clínico.

Descrição do caso: Paciente de 18 meses deu entrada à emergência com dor abdominal e vômitos há 48 horas. O exame abdominal revelou dois orifícios e massa pequena endurecida. O raio X de abdome mostrou imagem compatível com três objetos metálicos. Duas agulhas e um prego sem cabeça foram removidos da cavidade abdominal por meio de laparotomia.

Comentários: O diagnóstico foi realizado no segundo atendimento médico, provavelmente por não ter sido aventada a possibilidade de lesão intencional no primeiro. A violência física é um diagnóstico diferencial a ser pensado nos quadros de dor abdominal em crianças. Ressalta-se a importância de aprimorar a formação do residente de Pediatria e dos pediatras em geral para a abordagem da violência contra a criança, de forma que estejam mais preparados para o acionamento da linha de cuidado em situações de violência.

Palavras-chave: síndrome da criança maltratada; dor abdominal; internato e residência; educação médica.

RESUMEN

Objetivo: Alertar a los pediatras y médicos internos en Pediatría respecto a la posibilidad de ocurrencia de violencia contra el niño por medio del relato de un caso clínico.

Descripción del caso: Paciente con 18 meses llevado a la emergencia por dolor abdominal y vómitos hace 48 horas. El examen abdominal reveló dos agujeros y masa pequeña endurecida. Rayo-X abdominal mostró imagen compatible con tres objetos metálicos. Dos agujas y un clavo sin cabeza fueron removidos de la cavidad abdominal mediante laparotomía.

Comentarios: El diagnóstico se realizó en la segunda atención médica, probablemente por no haber sido aventada

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la posibilidad de lesión intencional en la primera atención. La violencia física es un diagnóstico diferencial que se debe tener en cuenta en los cuadros de dolor abdominal en niños. Se subraya la importancia de perfeccionar la formación del médico interno en Pediatría y de los pediatras en general para el acercamiento a la violencia contra el niño, para que estén más preparados para accionar la línea de cuidados en situaciones de violencia.

Palabras clave: síndrome del niño maltratado; dolor abdominal; internado y residencia; educación médica.

Introduction

In the Emergency Department of medical care services it is not only possible to raise the suspicion of violence against children and adolescents, but also to provide appropriate care and to ask for the help of protective services for the victims[1]. The Emergency Department is the setting where the physician has the greatest opportunity of facing cases of violence[2].

Prior studies, however, have shown that physicians have little knowledge, training and assurance to identify and treat the situations of violence against the child[2-4].

The Pediatric Residency is regarded as the training period when the physician has the greatest opportunity to acquire knowledge and experience in the diagnosis and management of the child who is victim of violence[5], since the graduation courses do not satisfactorily address this issue[6,7]. Nevertheless, many residents complete their training with limited training in domestic violence against children and adolescents[2-4].

This report aims to alert the pediatricians and pediatric residents about the possibility of child abuse in the face of a frequent clinical complaint, such as abdominal pain. This study was approved by the Research Ethics Committee of *Instituto de Puericultura e Pediatria Martagão Gesteira* of the Federal University of Rio de Janeiro.

Case report

An 18 month old infant, female, white, was seen in the Pediatric Emergency Department of a public hospital located in a county in Baixada Fluminense/RJ. In the same day she had been seen by a pediatrician in another Pediatric Emergency Department with the history of abdominal pain and vomiting in the prior 48 hours, with no fever or other associated symptoms.

At admission she was in a good general condition, afebrile (36.7ºC) and hydrated. The abdominal examination revealed two small holes in the hypogastrium, and a small, hard palpable mass, with no other changes. Blood count revealed 20400 white cells, with 1% bands, 46% neutrophils, 50% lymphocytes and 481.000 platelets/mm^3. The abdomen X-ray showed three metallic objects (Figure 1); the thorax X-ray was normal. After the diagnosis was established, the Pediatric Surgery, Social Service and Psychology Service were consulted. We filled a form of violence against children and adolescents, and the Guardian Council was notified. The case was also reported to the Police Station of the district that, after completing the investigation, concluded that the perpetrator was a family neighbor. The subject confessed the crime, alleging that he felt jealous of the child, who was beautiful and beloved by their parents, and he was arrested. The patient underwent a laparotomy, and one headless nail and two sewing needles were removed (Figure 2). The patient recovered well, and was discharged on the 6th day after admission.

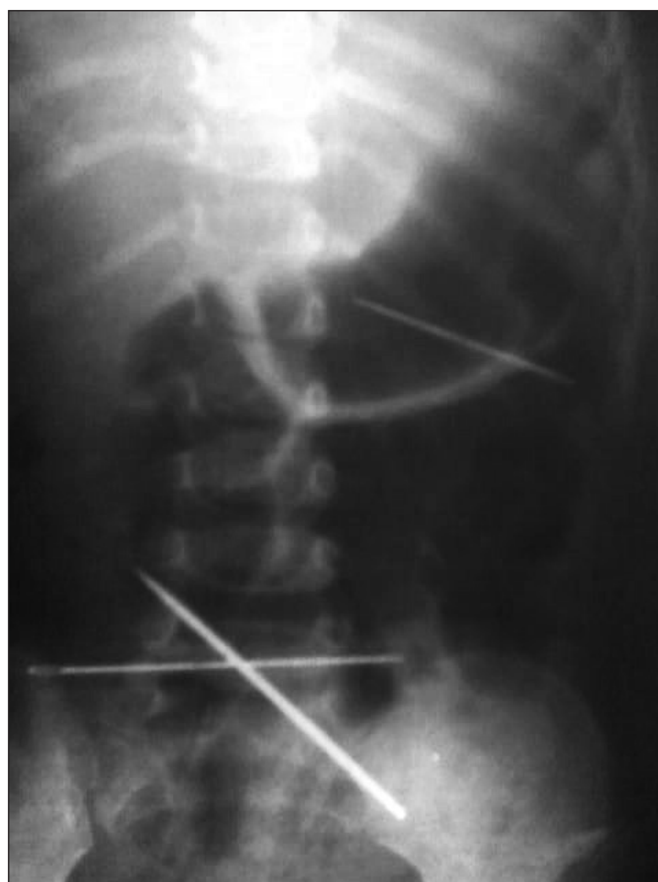

Figure 1 - Abdomen X-ray showing three metallic objects

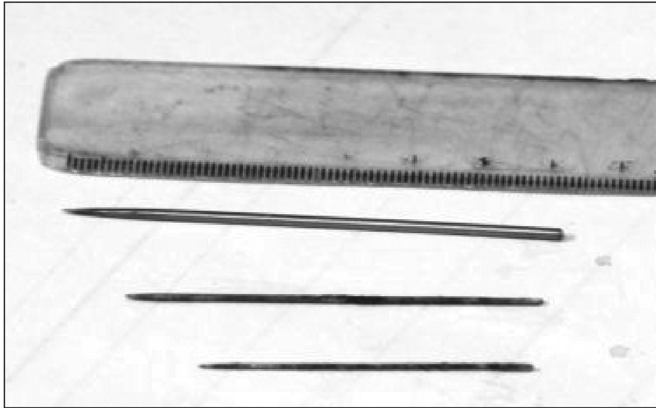

Figure 2 - Two sewing needles and one headless nail removed from the abdomen

Discussion

Infancy is one of the age groups that are most vulnerable to violence. In Brazil, the external causes (accidents and violence) are the leading cause of death in the age group from 1 to 19 years old[8]. Special attention must be given to children under 3 years, in whom the verbal communication is either faulty or nonexistent, and the consequences and manifestations of suffering do not usually develop immediately[9]. Therefore, pediatricians should be aware of the signs and symptoms that may represent manifestations of child abuse.

The medical literature considers the abdominal pain as one of the manifestations of abuse against the child and adolescent, which may either result from direct actions (of physical or sexual abuse) or be the expression of emotional disturbances consequent to long term abuse[10]. It has also been demonstrated that abdominal injuries represent an important cause of mortality resulting from intentional injuries in the childhood, and this form of violence must be considered an important differential diagnosis of abdominal pain in children. In the present case, there was the insertion of foreign bodies in the abdomen, which is an uncommon practice of physical abuse against children, and even rarer, the object used was a needle. Few cases of this type of injury have been reported in the literature, and it has been questioned the role of cultural influences on such a practice[10-12].

Unlike what is observed in the medical literature, in the Brazilian media the reports of needle insertions in children (mainly in infants) are not rare. In recent cases, this practice was associated to religious rituals[13-15], which poses an alert to the cultural influence of this type of physical violence in our country, although this was not the alleged reason in this report. In the situations reported in the media, the diagnosis were established when the children were taken to the health services with symptoms of pain, vomiting or bleeding, with the needles having been detected after radiographic investigation.

In our report, the child was not identified as a victim of physical abuse by the occasion of the first medical visit, and the family was advised to search for another health service by their own; had not the recommendations been followed by the child's guardians, it would have represented a risk to her life.

Each and every contact of the health professionals with children and their families is considered an opportunity to observe the presence of signs and symptoms that may result from situations of abuse. By recognizing and appropriately managing the cases of domestic violence against children and adolescents, the pediatrician reduces the risk of new abuses and their consequences (terciary prevention)[9].

The consequences of violence that directly affect the health of the child or adolescent can be immediate, medium and long term[16]. The immediate consequences are more easily identified, as they tend to leave visible marks on the skin and the osteo-articular system. The medium ad long term consequences, in their turn, can manifest as psychosomatic disturbances, chronic or remissive gastrointestinal disorders, anxiety, depression, aggressiveness, shyness, abusive behavior (they may become future perpetrators of aggression), sleep and appetite disturbances[17].

Although domestic violence against children and adolescents is not a new problem faced by the healthcare professionals in their work routine, there are still difficulties in its identification, which is essential for the adequate prevention and management of physical abuse[18].

The reasons for difficulties in identification are multiple and interconnected. The first reason relates to the insufficient level of information of the healthcare professionals on the issue[19], once when leaving the medical course the students do not properly understand the violence phenomenon, and the medical residency does not offer access to such knowledge as well[7]. The second aspect relates to the little knowledge of the law by these professionals[19], who frequently do not feel responsible for the protection of children, contradicting the recommendations of the Statute of Children and Adolescents. It should also be emphasized that another aspect that complicates the identification of violent abuse is the process of care, which is usually conditioned to the structural limitations of the health service,

with a prominent emergency approach, which may have happened in the case herein reported. Finally, the real causes of injuries are rarely investigated, which contributes to its concealment and repetition[18].

It is noteworthy that the difficulty to identify child abuse is observed even among the most experienced pediatricians. When interviewing pediatricians with mean of 22 years experience time, Bannwart and Brino[20] described that 75% of the participants reported doubts regarding the suspicion of violence.

The main difficulties reported by health professionals relate to the identification and referral of situations of domestic violence against children, in addition to the limitation in their resolution due to fears implicit in the professional-family-community relations[2,5]. Fear may represent an obstacle to the learning process and, consequently, of the professional performance, and must be worked up so that new results can be experienced[2]. To achieve such results, the training of residents must prepare them for this approach.

In a study performed with pediatric residents, fear was shown to be an impediment which limited the ability to recognize the child or adolescent in its otherness. The interviewees expressed feelings such as fear, prejudice, indifference and denial. More than half of them reported technical difficulties (such as how to perform the medical interview, how to establish the diagnosis, how to break the silence pact and the neglects), and considered the medical training itself insufficient[2]. This shows that the resident training has not focused on the new developments in the field of child abuse[3].

The teaching difficulties regarding the issue of domestic violence against children and adolescents is common, and despite the existence of guidelines and new proposals, these have not reflected in greater commitment of the pediatricians[2]. Few of them have this issue addressed along the graduation course, which evidences the urgent need to include this subject in the medical curriculum, as well as to train the graduated professionals[21].

As shown in some studies, the knowledge of the residents has clearly been considered significantly weak and in need of improvement[3,22], and could benefit of increased training opportunities[3]. Even the programs that provide no clinical experience in child abuse could offer a better training of their residents, by emphasizing and improving the didactic quality of teaching[3], offering internship in health services that assist children who are victims of domestic violence, as well as offering mini-intensive courses[4].

It must be emphasized the important role of the preceptors in evaluating the experience offered to their residents, and in suggesting the development of a standardized and well structured curriculum that meets the residents needs[4]. The implementation of a standardized curriculum in child abuse could: include the reformulation of the content of the medical training based on the identification, prevention and management of child abuse; be able to create new models of curricular programs based on child abuse; publish the results obtained in these programs, in order to enhance the success and lead to new changes[23]; add to the curriculum, references of the literature and educational photos, discussion of clinical cases, guidelines for the management of domestic violence against children and adolescents, and other tools necessary for the resident's education[24].

In the setting of health facilities, some proposals may facilitate the work of the professionals when facing the domestic violence against children and adolescents: training courses for professional practice, educational lectures for parents and/or guardians in the areas of Child Care and Pediatrics, and dissemination of guidelines for the management of child abuse in the health network[19].

In order to protect the children and adolescents who are victims of violence, it is important to ensure that the health professionals be able to develop the knowledge and skills, and follow, step by step, the line of health care for children in situations of violence (the reception, followed by the attendance, the notification and follow up in the network of care and social protection)[9]. This line of care was not triggered in the first medical visit in the reported case, which put the child in risk for further aggression, especially because she was an infant.

Several emergency services are the setting for supervised training of medical residents. Thus, there are opportunities for overall benefit coming from a better training in the care of the abused child: a pediatrician with proper skills to provide such care can share his knowledge with the residents and they, in turn, can also be the source of updated information for those preceptors who may not have had the opportunity to acquire this knowledge. By including the violence, consistently and safely, in the list of the differential diagnostic possibilities for a variety of clinical situations, both the health professionals and the families will be better prepared to draw combined strategies for child protection.

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