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Mini Review Open Access

Awareness and Recognition: The Importance of the Orthopaedist in Child Abuse

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The role of the orthopedic surgeon in suspected cases of child abuse includes (1) obtaining a good history and making a thorough physical examination; (2) obtaining the appropriate radiographs and notifying the appropriate services; (3) participating in and communicating with a multidisciplinary team to manage the patients [1].

The orthopaedic evaluation of a child with a suspect non-accidental bone fracture or a joint dislocation, might represent indeed a challenge for the orthopedist, even for the most expert one, because the lesions might be not clear, misleading, insidious, and of a difficult interpretation; however, determining the cause of bone lesion, even if difficulty, it is essential to diagnosis, prognosis and therapy [2].

Great help may be obtained from the physical examination and, before that, from the medical history. An accurate medical history indeed, may give important clues even before examining the child. Aspects of the history that increase the level of suspicion for inflicted injuries include inconsistencies or discrepancies in caretakers' accounts of the circumstances surrounding the injury, unwitnessed injuries, injuries attributed to the patient's siblings, injuries inconsistent with the child's developmental stage, injuries inconsistent with the mechanism of injury offered, multiple injuries in various stages of healing, or different types of injuries coexisting (bruises, burns, fractures), fracture in combination with extra skeletal injuries, healing fracture for which there was a delay in seeking medical attention, fracture of the femur in a child who is too young to walk.

Regarding the pregnancy history, for example, among the so-called warning signs, an unwanted pregnancy (a refused child), or a severe post-partum maternal depression, or the mother being affected by PTSD (Post Traumatic Stress Disorder). The family history, may disclose that one or both parents are affected by a neuropsychiatric disorder, or are addicted to alcohol or drugs or have themselves a positive family history of child abuse and physical maltreatment [3].

Soft-tissue injuries are the most common injuries identified in physical abuse. Fractures are the second most common injury presenting in as many as 55% of physically abused children and occurring during infancy and early childhood, with as many as 85% in children younger than three years, and 69% in children younger than one year [4].

Most child abuse-related injuries are detectable during imaging. The radiographic evaluation is outstanding and it depends upon the age of the child and the physical examination findings.

The appropriate imaging of pediatric patients being evaluated for suspected physical abuse depends on a lot of factors described by the ACR Appropriateness Criteria(®).

In general there is no particular fracture pattern, location, or morphology that is characteristic of child abuse although there are fracture patterns that can be suggestive of inflicted injury. Diagnosis is mandatory because children returning at homes without a correct diagnosis have a 50% risk of repeated abuse and a 10% risk of fatality [5].

Finally, the neurological and neuropsychiatric child's assessment should focus to disclose whether the child has ever shown signs of sudden cerebral irritability (tremor, torpor, lethargy), or sudden and unexplained crying episodes, especially in infant babies, or regressing behaviour such as bedwetting, constipation and encopresis or unexpected and unexplained personality alteration.

Furthermore the orthopaedist should assess aggressive behaviour, sudden mood changes, obsessive compulsive symptoms, unexplained fear and phobia, sleeping problems (nightmares), attention deficit disorder and poor school concentration, sudden speech disorders, learning difficulties, inadequate and unexplained sex acts.

In conclusion, awareness and recognition of child abuse are the primary functions of the orthopedic surgeon, in fact 1/3 of physically abused children are diagnosed by orthopedist and he can be the first and sometimes the only physician an abused child could encounter. [6].

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