We tend to regard childhood as a time of carefree fun and innocence, yet many children experience violence every day in their own homes, at the hands of adults who are supposed to love and care for them [1]. The statistics are horrifying. Child abuse is a major cause of morbidity and mortality in the United States as well as in other countries where its incidence has been studied [2]. According to the World Health Organization, in 2000 an estimated 57,000 deaths were attributed to homicide among children under 15 years old [3]. Homicide is the second leading cause of death in children in the U.S. [2] and a leading cause of injury-related death for children younger than 5 years. Three children die in America every day as a result of child abuse and neglect. Nearly half of the children who die of CAN are younger than 1 year and 85% are younger than 6 years of age [1]. Many of these children’s deaths are not routinely investigated and postmortem examinations are not carried out.

A U.S. survey performed in 1995 questioning parents on how they disciplined their children revealed that 4.9% of the children were physically abused. Available research suggests that CAN rates in other countries are no lower and may be higher, for example: Egypt 37%, Korea 45%, among others [3]. In Israel, in 2003, according to the data supplied by the Statistical Yearbook 2004, a total of 37,000 reports of suspected child abuse or neglect were made to the welfare services or police. In that year the number of children in Israel aged 0–17 was 2,253,800 [4]. The Federal Child Abuse Prevention and Treatment Act defines CAN as “any act or failure to act on the part of a parent or caretaker that results in death, serious physical or emotional harm, sexual abuse or exploitation, or an act or failure to act that presents an imminent risk of serious harm to a child” [1]. Discrepancy between the rights of the child and the realization of those rights constitutes maltreatment [5]. Maltreatment can also be indirect, when it is directed to other family members in the presence of a child.

The radiologist John Caffey MD can probably be credited with initiating medical concern, in 1946, with regard to child abuse and was the first to treat the problem in a scientific manner. Kempe coined the term “the battered child syndrome” in his landmark article published in JAMA in 1962 [3,5,6]. Child maltreatment is a multidisciplinary problem involving legal, medical, social services, public policy and mental health components [7]. Four decades after the publication of Kempe’s seminal article there is clear evidence that child abuse is a global problem, and while it seems inconceivable it continues to be a widespread phenomenon in our society [3,8].

Abuse may occur in a variety of forms and is deeply rooted in cultural, economic and social practices. Different cultures have different definitions and rules regarding acceptable parenting practices, but it is generally agreed that very harsh discipline practices and sexual abuse are not acceptable [3]. Throughout the history of mankind in many parts of the world – as recorded in literature, art and science by different cultures, races and religions – there are descriptions that can be interpreted as child abuse [3,5]. Children were considered to be their parents’ property and therefore the parents could treat them as they wished. Stamford T. Shulman [8] tells a fascinating story about the first organized efforts to protect children from abuse in the USA. Though hard to believe, the child legislation act developed as an extension of human efforts on behalf of animal rights. Henry Bergh founded the Society for Prevention of Cruelty to Animals (SPCA) in 1866. In 1874 he petitioned a judge of the New York State Supreme Court to issue a warrant to remove a girl, “little Marie Allen” age 8, from her foster parents who were accused of brutally beating her. Because there was no law to protect children from their parents, Bergh decided that “the child being an animal,” the SPCA would offer her protection as well. Her mother was convicted of felonious assault and Marie Allen was placed in an institution with the comforting name “Sheltering Armes.” This episode subsequently led to the formation of the Society for the Prevention of Cruelty to Children (SPCC) in 1874. Child welfare legislation in New York State was influenced by this highly publicized case in 1876 [7]. But it took many more years for Kempe’s article to effect any change [6].

In Israel, the case of a little girl, Moran Damias, who died after suffering recurrent abuse moved forward the legislation making mandatory the reporting of suspected maltreatment of children (amendment of the penal code, clause 368d, 1989). Ac-
cording to this law, reporting SCAN is mandatory for everyone and in particular for professionals who interact with children such as physicians, nurses, psychologists, social workers and teachers. Mandatory reporting of SCAN exists in most western and developed countries. However, when looking at the statistics of CAN, we need to ask ourselves what is the true picture, both here and in other countries. Should we be satisfied with the current state of knowledge, exposures, reporting, interventions and outcomes of this socio-medical disease? Is there a neglect of CAN by healthcare providers, and if so why? What can be done to improve the current situation? Van Haeringen et al. [9] concluded that “to some extent children’s outcome when presenting to medical practitioners as a result of CAN is no better than a lottery, dependent on which doctor they happen to see.”

Glasser and Chen recently performed a survey, reported in this issue of IMAJ [10], in which they investigated the current knowledge, attitude and behavior of the staff in their pediatric hospital in Tel Aviv regarding SCAN. Similar to other studies where physicians and nurses saw themselves in a key position for detecting SCAN [3,5,6,9,11], there is general agreement among participants that the issue of SCAN is the responsibility of each profession, although 35.4% of them considered it to be the primary responsibility of the welfare or judicial system. It is well established that misdiagnosis, late detection and late intervention may culminate in adverse long-term consequences or in a child’s death [12]. One such problem is that parents often give a false and misleading history, thus hiding facts from the physician, and the patients are often too young or too afraid to tell the truth [2,5,6,11,13]. Although the medical profession has rightfully asserted its responsibility, authority and expertise in the diagnosis and management of SCAN, abuse continues to be under-reported [2,5,7,19].

There are still many situations in which professionals are not sufficiently experienced and are uncertain of the cause of injury or of the proper action to take when they suspect CAN [2,5-14]. This points to neglect of education on CAN. Physicians may not be reporting abuse because of misdiagnosis, denial, ignorance of the reporting process, a non-confrontational style, distaste of involvement with protection services, their personal beliefs, or due to anxiety about their own community standing [5,6,10,12,15]. In some cases physicians’ failure to report CAN relates to subjective feelings about child punishment and personal values and attitudes towards abuse. Tirosch and colleagues [16] found that 58% of the physicians who participated in their study approved of corporal punishment, a factor that in turn influenced their reporting behavior of CAN. It is very difficult for healthcare providers to believe that parents who appear to be caring and who interact well with the physician, in fact abuse their children. This is especially difficult when parents appear to exhibit characteristics similar to those of the treating physician [3,4,12,15,17]. Glick [18] reports a severe case of misdiagnosis in which the mother was a nurse and as a result was not suspected of CAN by the medical staff. Another common reason for misdiagnosis results from physicians’ feelings of discomfort discussing the subject with the parents or the child [5,10]. In an unpublished survey performed by Bar-Am and Vechtel (students at the Jezreel Valley Academic College) and myself, we found that the knowledge of physicians regarding CAN was related to the country where they received their medical education. All physicians and medical students in most studies reported a lack of adequate teaching and training, which was more evident in surgical specialties [11,12]. Goethe wrote that “We see what we look for and we look for what we know” [2]. Medical personnel must learn to know, and then to maintain a very high index of suspicion in order to detect CAN, to identify the hidden signs and to see beyond them into the neglect [7].

During the last 20 years the Ministry of Health in Israel has made efforts to deal with this problem. In 1985 the Ministry demanded that every hospital in Israel appoint a multidisciplinary child protection team comprising a physician, nurse and social worker. Their task is to help identify children who are suspected victims of CAN, coordinate inquiry, report to welfare workers or the police, and increase the knowledge of the hospital’s staff on SCAN. Teams in different hospitals vary in composition [10,20]. At HaEmek Hospital in Afula, the team is headed by the physician who is head of the pediatric emergency department. The coordinator is a social worker in the pediatric surgery ward and the nurse is the chief nurse of pediatric emergency. At HaEmek, we also added a female gynecologist, a family physician who is also a lawyer, a nurse from trauma emergency and a nurse from the pediatric ward. It was our hope that having “satellites” in different departments would improve awareness and that together we could make better decisions. Some members are part of a similar team in the community. Most articles report an expressed need for the specific education of all healthcare providers on symptoms, signs and differential diagnosis on CAN and to expand knowledge about the law and the social services available [1-3,5-7,9-12,14,17-19]. The curriculum of all physicians and nurses who treat children must include obligatory training in all aspects of SCAN [2,13] at least at the level in practice in New York State, where healthcare professionals are required to take a 2 hour course on identifying and reporting child abuse and neglect as a prerequisite to obtaining a license [3]. There is currently a new program for training professionals on family abuse at the Israel Center for Medical Simulation at the Sheba Medical Center. This activity should be expanded and the Israel Medical Council should adapt a policy making it obligatory for all physicians who care for children – such as surgeons, orthopedists, traumatologists, radiologists, ophthalmologists, otolaryngologists and dermatologists – to receive instruction and training on CAN.

Furthermore, I believe that the presence of a social worker in the emergency departments 24 hours a day, who approaches every injured child and their family, might help in the detection of SCAN. The standard of care for the injured child must include a complete physical examination with the child completely undressed even if the injury is not severe or the symptoms not specific [15]. The protocol of evaluating an injured child...
must contain some set of obligatory questions that have to be documented, like: what happened, where, when, from what height, on which surface, and who was present at the time of injury? In children younger than 2 years, a complete X-ray survey should be performed when abuse is suspected. In cases of head trauma or in the presence of neurologic signs a fundoscopy by an expert ophthalmologist should be completed to identify cases of shaken baby syndrome. When abuse is suspected the child must be admitted, followed by a consultation with the hospital-appointed team. There should be mandatory feedback from the police and the welfare workers to the teams or physicians who report the SCAN. Collaboration among healthcare providers and other professionals, including social services, police and the legal system must be viewed as a circle in need of completion, for making decisions regarding the abused children. Although making a correct diagnosis of CAN will continue to be a challenge [13] and reducing missed or delayed diagnosis to zero is unlikely, we should make every effort to put an end to the neglect of CAN.

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Capsule

Helminths modify host environment

Pathogens have evolved countless devious means of thriving within their hosts. These range from antigenic escape from the attention of B and T cells to usurping the early detection network of the innate immune system. Wilson and co-authors (J Exp Med 2005;202:1199) provide evidence to suggest that the nematode gut parasite Heligmosomoides polygyrus protects itself by suppressing allergic T cell responses in the host. Nematode infection was found to decrease the pulmonary allergic inflammation normally evoked in mice by an allergen from the house dust mite. Tying several lines of evidence together, the effects were narrowed to a population of regula-

tory CD4 T cells from gut-associated lymph nodes of infected mice. Smith et al. (p. 1319) found that another helminth, the trematode parasite Schistosoma mansoni, produces a chemokine-binding protein (CKBP) to protect itself from the ill effects of host inflammation. CKBP was detected specifically in the egg stage of the parasite and bound CXCL8 (IL-8) and CCL3 (MIP1a). Predominantly through effects on neutrophil activity, CKBP inhibited different forms of experimental inflammation in mice. Both studies reveal a new layer of diversity by which helminths modify their host environment.

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