MEDICINE

IDENTIFYING MUNCHAUSEN SYNDROME BY PROXY

—by Alex V. Levin

Editor's Comments
—by Martin Finkel

Dr. Alex Levin has developed considerable expertise in a very difficult and usually bizarre form of maltreatment—Munchausen Syndrome by Proxy. He has done a superb job of characterizing this syndrome by providing the essential components of the syndrome and a profile of the perpetrators. This syndrome represents another form of maltreatment for which a multidisciplinary team is essential.

Munchausen Syndrome by Proxy (MSP) is a form of child abuse in which the perpetrator, who is almost always the mother, causes her child to come under intense and prolonged medical scrutiny as a result of her falsification of history, covert alteration of laboratory specimens, or covert creation of unusual physical findings which create the appearance of illness in the child.

The most common manifestations of this syndrome include: 1) repeated covert suffocation which creates a clinical picture of recurrent cyanosis, apnea, or gastroesophageal reflux, 2) factitious bleeding from body orifices due either to direct covert injury or to the use of substances such as maternal menstrual or animal blood, which create the appearance of what is thought to be the patient's blood, or 3) laboratory manipulations such as the addition of sugar or salt to body fluid samples. Covert administration of drugs such as insulin, anticonvulsives, and even common household foods such as table salt or pepper have been well recognized as manifestations of MSP.

Although these bizarre clinical scenarios have been noted by many authors, a more common form of MSP may involve the behavior of "doctor shopping," wherein the child is taken from physician to physician with vague and nonspecific complaints, in particular symptoms related to allergic illness or fatigue. Well-meaning medical professionals become entangled in the scenario created by the perpetrator in an attempt to understand what seem to be symptoms of an elusive and rare medical disorder. Therefore, it is especially important for medical caretakers to be aware of this syndrome, as early recognition will prevent continued abuse of the child which can potentially lead to death in approximately 10% of cases.

The profile of an MSP perpetrator is very characteristic, and in and of itself should raise the level of suspicion regarding the possibility of this diagnosis. She most often

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MEDICINE

SHAKEN BABY SYNDROME

—by Alex Levin

Editor's Comments
—by Martin Finkel

Parents and non-medical professionals may be unaware of the significant morbidity and mortality which can result from the shaking of a baby. This parental response to the unrelenting cries of a baby frequently presents without obvious injuries and may create a diagnostic dilemma for the clinician. This article by pediatric ophthalmologist, Alex Levin, MD, is an excellent introduction to the problem of Shaken Baby Syndrome.

The Shaken Baby Syndrome (SBS) is a form of child abuse almost exclusively affecting children under the age of three years, with the majority of victims under 18 months of age. The clinical triad of brain injury, skeletal injury, and retinal hemorrhages is the hallmark of SBS. However, only brain injury is required when making this diagnosis. There is currently much controversy regarding the role of blunt head trauma in the causation of the injuries seen in SBS (2,3). However, my own clinical experience, and that of many others, suggests that head trauma is not required to generate the types of brain injuries seen in SBS. These injuries can result from the violent shaking of an infant during which the head is caused to move in many directions in an uncontrolled fashion. Children of this age have relatively large heads, immature brains, and weak neck muscles, all of which contribute to the injuries.

As the brain is caused to accelerate and decelerate within the skull, veins may be torn, resulting in the accumulation of blood within (parenchymal) and around (subdural and subarachnoid) the brain. Contusion and laceration of the brain may also occur. Although the brain injuries of SBS may be fatal, a "subclinical" form of shaking may occur in which the infant presents to a caretaker with more nonspecific complaints such as irritability or vomiting. These injuries are most often detectable by CAT scan. However, in some patients, these hemorrhages will only be apparent with MRI scans. MRI also allows for better dating of these injuries.

The skeletal manifestations of SBS include small chip fractures of the ends (epiphyses) of the bones of the arms and legs and/or multiple posterior rib fractures. These latter fractures are caused by compression of the chest between the perpetrator's hands. The extremities are affected when a child is grasped by the arm or leg while the shaking occurs. Despite these multiple fractures, most children who are victims of SBS present with no external evidence of trauma. It should be remembered that rib fractures are an extremely unusual injury in this age range and are rarely produced even with the most severe blunt trauma.

Retinal hemorrhages within the eye occur in over 80% of affected children. They may be few in number or widespread throughout the retina. Dome-shaped blood-filled cystic cavities within the layers of the retina (traumatic retinoschisis) may be diagnostic for SBS. Although the retinal hemorrhages usually resolve without visual sequelae, visual loss or blindness is not uncommon in this syndrome due to injuries to the optic nerve or brain. An ophalmologist should be consulted to perform complete retinal examination in all cases of suspected SBS. Postmortem removal of the eyes, and perhaps the entire orbital soft tissue contents, can be extremely important in recognizing that nonaccidental injury has occurred. In particular, our recent research suggests that hemorrhage behind the eyeball may be characteristic of SBS.

It is always important to rule out accidental trauma or medical illness when faced with findings compatible with SBS, in particular the brain and eye injuries. Coagulopathies, spontaneous intracranial hemorrhage (e.g., aneurysm), or meningitis might rarely mimic SBS without fractures. These can usually be ruled out by noting the patterns of physical, radiologic, and ophthalmologic findings. Of course, social history is of utmost importance when trying to rule out accidental injury. The astute clinician must recognize the possibility of abuse based on the total clinical scenario. Whenever retinal hemorrhages are seen, a CAT scan or MRI should be performed. If the CAT scan is normal, I suggest that an MRI be used. A complete skeletal survey, looking for occult fractures, is also indicated.

SBS is a devastating form of child abuse, responsible for the majority of infant homicides. Survivors may be left with severe neurological and visual handicaps. Detection and prompt intervention may be life-saving.

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has some type of medical training in her background. As a result, she has access to and familiarity with medical knowledge which facilitates her ability to carry on this ruse. Although the child is often hospitalized at many different institutions, during each hospitalization the mother appears as the "perfect parent." She is often overly involved in her child's care, volunteering to help nurses with their duties and perhaps even assisting with the care of other children in the room. She is constantly at the child's bedside, which reflects the enmeshed dynamics of the maternal-child relationship seen in this syndrome. However, the father is often absent, visiting infrequently, and exhibiting very little knowledge of the nature and severity of his child's condition. In fact, it has been theorized that the mother may be causing the child to have frequent admissions in an effort to avoid a home situation which may include an alcoholic or abusive spouse. In addition, the unusual and undiagnosed illness which she has created in her child affords her tremendous attention, as multiple caretakers and consultants become involved in her child's care.

Many of the perpetrators establish social networks within the hospital. When the diagnosis becomes clear, these caretakers and hospital staff may spring to the defense of the mother, incredulous of the possibility of such bizzarre accusations against her. The perpetrator adamantly denies her acts. A child victim is often pre-verbal, therefore unable to contribute history which would allow medical professionals to recognize readily the mother's pattern of covert behavior. Even when verbal, the children may be depressed or so passively involved in the clinical manifestations of MSP created by the mother that they become unwittingly complicit. Once this disorder is suspected, the mother must be separated from the child. Almost instantaneously, the child's symptoms will disappear.

Careful and complete documentation regarding the factitious nature of the child's condition must be obtained before multidisciplinary confrontation of the perpetrator. Such evaluations as serial blood levels of prescribed drugs related to the time of maternal care, serum analysis to distinguish porcine insulin from human insulin, blood typing of red blood cells found in specimens, and pharmacokinetic studies have been used in these situations. The meticulous and extensive review of the child's medical records at all involved institutions and private offices will often help to establish certain patterns. Clinical manifestations such as seizures or cyanosis will not have been witnessed by any other observer besides the mother. No inpatient manifestation of these medical symptoms outside of the mother's care will have been noted. Unexplained drug levels or rapidly appearing mucosal membrane or skin lesions may be noted. One should also attempt to uncover past medical records on the mother as she often will have a history of having factitious illness or Munchausen Syndrome herself.

Perhaps the most difficult manifestation of MSP is that of recurrent covert suffocation. Such behavior has been documented on both video tape and pneumogram recordings. In view of the legal considerations concerning covert videotaping, one must consult with hospital administrators, attorneys, and police before proceeding. Similarly, some authors have reported cases in which a search of the mother's personal belongings has revealed syringes, drugs, or other paraphernalia which has been used in the perpetration of MSP. Again, legal and law enforcement consultations are necessary before conducting such a search.

MSP is a potentially fatal syndrome which may affect siblings in serial fashion. Unfortunately, treatment of the perpetrator has been almost uniformly unsuccessful. Separation of the victim child and siblings from the perpetrator may be essential for adequate protection. However, if the new caretaker is a family member, he or she must be reliably cognizant of the reality of MSP and the perpetrator's role in the child's factitious illness. Otherwise, protection cannot be guaranteed since the perpetrator will be as adept at making the caretaker believe her innocence as she was at having the medical caretakers believe that her child had a real illness.

Perhaps the strongest obstacle to the diagnosis of MSP is the failure to believe that such an entity could exist or the failure to have the proper index of suspicion when confronted with a complex clinical situation that "just doesn't make sense." MSP should be considered in all cases of chronic, unremitting, unpredictable clinical manifestations which have been presented to multiple caretakers without diagnosis despite thorough and exhaustive medical testing, and which respond inconsistently to treatment.

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UPDATE

A DECADE OF PREVENTION

—by Nicole Romano

One of the biggest advances the field of child abuse prevention made during the 1980s was the advent of the Children's Trust and Prevention Funds. Through passage of state level legislation, 49 states (all but Wyoming) established Funds between 1980 and 1989. The mission of these funds is to generate and distribute money for community level child abuse prevention programs, such as parent education, parent support, child sexual assault prevention, and public information programs. Twenty of the Funds also deposit a percentage of their revenue into interest-bearing trust accounts, in order to establish permanent funding mechanisms for child abuse prevention.

The number of Funds and their revenues increased steadily through 1989. In Fiscal Year 1990, however, fundraising leveled off: approximately $28 million in state revenues and $5 million in Federal Challenge Grant monies were generated. Virtually the same amount of money was raised in Fiscal Year 1989. Nonetheless, over 1350 grants were given to fund local programs.

With the beginning of a new decade, Trust and Prevention Funds must renew their challenge and commitment. Perhaps new funding sources or increasing state and federal appropriations should be sought. Two specific planning initiatives have been developed. The National Alliance of Children's Trust and Prevention Funds was established in October of 1990. It is an independent organization whose mission is to engage cooperatively in national efforts to assist Trust and Prevention Funds. A Second Decade Task Force, organized by the National Committee for Prevention of Child Abuse (NCPCA), and consisting of Trust Fund staff, board members and grantees, is now trying to discern methods of sustaining past momentum and facing new challenges, especially in the areas of research and evaluation, resource and program development, and public policy. A document based on the work of the Task Force will be disseminated in the Fall of 1991.

For more information about the National Alliance, contact David Mills, Executive Director of the Michigan Children's Trust Fund, at (517) 373-4320. Those interested in more information about the Second Decade Task Force should contact January Scott, NCPCA's Director of Training and Technical Assistance, at 312-663-3520.

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