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A Challenging Diagnosis of Hematuria

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A 4-year-old girl presented with macroscopic hematuria that was not preceded by infection, exercise, or trauma. Her history showed that she had been evaluated at several centers with the same complaints. Four months ago, she had undergone surgery with a diagnosis of vaginal adhesion at a clinic in which she complained of hematuria. In addition, she had been hospitalized 2 months earlier due to macroscopic hematuria, and despite numerous investigations, no underlying cause could be found. Her family history revealed that the family had several social and economic problems. Her father had a diagnosis of schizophrenia and was no longer living with the family. The grandmother took care of 2 healthy siblings and did not let them meet their mother. The mother's behavior was remarkable. Despite the child's long-standing complaints, she seemed unconcerned about the etiology and eager to be hospitalized.

On admission, her physical examination was unremarkable. She was healthy and growing normally. There was no edema, rash, wound, or signs of trauma or systemic disease. The urine was red in color on macroscopic examination and positive for heme on dipstick testing. The urine sediment revealed numerous isomorphic red blood cells. Complete blood count (hemoglobin 11.4 g/dL, platelet count 354 000/μL), coagulation tests (phrothrombin time (PT) 12.1 second, activated partial thromboplastin time (aPTT) 28.2 second, international normalized ratio (INR) 1.0), biochemical parameters (urea 23 mg/dL, creatinine 0.43 mg/dL, alanine aminotransferase (ALT) 19 IU/L, sodium 143 mEq/L, potassium 4.2 mEq/L, and calcium 9.2 mmol/L), serum complement levels (C3 1.19 g/L and C4 0.23 g/L), urine culture, urinary calcium and uric acid, abdominal radiographs, and urinary ultrasonography were all normal. Computed tomography of the abdomen performed before admission revealed no pathologic findings. There were no findings that explained the macroscopic hematuria. A urine sample was then obtained under the supervision of the medical staff. Neither macroscopic nor microscopic hematuria was noted in this urine specimen. Subsequent urine samples were collected and tested under supervision, and none showed hematuria. After the child was questioned without her mother being present, it was discovered that the mother had smeared her own blood with her finger on the child's genital area and added blood to the urine sample. The diagnosis was *Munchausen syndrome by proxy*.

This condition is described by the American Academy of Pediatrics as a form of child abuse that includes physical abuse, medical neglect, and psychiatric abuse[1] and is traditionally referred to as "Munchausen syndrome by proxy," a term first used in 1977 by Roy Meadow,[2] a British pediatrician. Meadow reported 2 cases in which mothers fabricated stories and symptoms and caused harmful hospital procedures and treatments in their children that resulted in the death of 1 of the children.[2]

The incidence of the syndrome is estimated to be 0.5-2/100 000 children younger than 16 years.[3] However, it is believed that many cases go undiagnosed. The time between onset of symptoms and diagnosis averages 15 months.[3] The main reason for the delay in diagnosis is that clinicians do not consider the syndrome in the differential diagnosis. Many pediatricians are familiar with child abuse but have difficulty recognizing this most severe form of child abuse. Pediatricians must be extremely suspicious of cases with unexplained, repetitive, or persistent symptoms that cannot be linked to a medical condition.

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A variety of symptoms may be observed, including bleeding, seizures, respiratory distress, diarrhea, vomiting, fever, and skin rash.[3] It has been reported that approximately 25% of cases present with urological symptoms such as urinary tract infections, urinary stone disease, and hematuria.[4] Another suspicious feature for this syndrome is the behavior of the caregivers, usually the mothers. They seem to be very cooperative and spend a great deal of time with their children in the hospital. They are familiar with medical terminology and encourage the physicians to perform investigations. They often try to convince the doctors that the child cannot manage the situation without their own care.[2,3,5]

In conclusion, Munchausen syndrome by proxy is a rare condition that is difficult to recognize. It is associated with long-term disability, permanent damage, and a high mortality rate of 6%-9%.[3] Therefore, it is necessary to raise awareness among clinicians. The syndrome should be considered in the differential diagnosis of diseases when the history, physical examination, and health status of the child are inconsistent, when the symptoms described cannot be associated with a disease, and the families' reactions to the symptoms do not correspond to reality.

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