A 2-MONTH-OLD infant who had a 2-day history of nasal congestion, discharge, and swelling was treated with normal saline nose drops and nasal suctioning. There was no history of respiratory distress. Five days later he returned with the same complaint of nasal congestion. There was no history of cough, fever, or trauma to the nose or face. On physical examination, swelling was noted in both nasal passages (Figure 1). On inspection using a nasal speculum swelling was noted on both sides of the nasal septum (Figure 2). Palpation disclosed firmness and apparent tenderness of the nasal septum in both nares. The remainder of the physical examination was unremarkable.
Denouement and Discussion

Bilateral Nasal Septal Hematomas

Figure 1. Narrowing of the nasal passages is noted.

Figure 2. Closer inspection discloses bilateral nasal swelling originating from the septum.

Little has been written in the pediatric literature about nasal septal hematomas. The presenting complaint in an acute hematoma may be nasal congestion suggesting an upper respiratory tract infection. The hematomas may be large enough to obstruct the nasal passages and create respiratory distress in infants who are obligatory nose breathers. Unless the nares are inspected closely, the diagnosis may be delayed. Blunt trauma, either intentional or unintentional, is the most common cause of nasal septal hematoma, but a bleeding diathesis should be considered if the hematoma develops after seemingly trivial injury. The possibility of child abuse must always be considered, even in infants.

PATHOGENESIS

Rupture of blood vessels adjacent to the septal cartilage may result in the collection of blood in the space between the cartilage and the mucoperichondrium. Bilateral septal hematomas may be caused by trauma to both sides of the septum or may be secondary to the dissection of blood through a fracture line in the cartilage from one side to the other.1

EVALUATION

Because the nose of a child is made up of at least two-thirds cartilage, radiography is not helpful in evaluation of nasal trauma. The diagnosis is made on careful inspection of the nares and determination of the accumulation of blood in the septal swelling. Evaluation for a bleeding diathesis may be necessary.

COMPLICATIONS

The most important acute complication of a nasal septal hematoma is the development of a secondary infection, most often with Staphylococcus aureus. The infection may result in ascending infections, including meningitis and cavernous sinus thrombosis. If the hematoma remains untreated, residual structural complications may occur. The nasal cartilage may erode from pressure of the hematoma, or retractile scar tissue may form, both of which may cause a saddle nose deformity, a retracted columella, or a widening of the base of the nose. Functional obstruction may develop secondary to the scar tissue formation, cartilaginous overgrowth, or twisting or buckling of the nasal septum.1

TREATMENT

A nasal hematoma must be treated aggressively with antibiotics if an infection is present. If no infection is present, the hematoma should be drained to prevent subsequent complications and deformities. Prophylactic antibiotics should be given before surgical drainage.

THIS CASE

Although the aggressive use of nasal suctioning was initially thought to be the cause of the hematomas, when the infant was later found to have callus formation around a distal left tibial fracture, Child Protective Service was notified of possible abuse.

The nose is not mentioned as an isolated target of child abuse in comprehensive textbooks on the subject. Children with facial trauma from abuse have been described with scleral and retinal hemorrhages, corneal abrasions, earlobe hematomas, tympanic membrane perforations, uner syndromes, torn oral frenula, facial bone fractures, avulsed teeth, and various burns, bruises, and scars.2-5 Nasal destruction as the sole manifestation of chronic trauma induced by vigorous rubbing by a mother with a possible obsessive-compulsive disorder has also been reported.6 The nares should be carefully inspected in infants and children with trauma to the face—accidental or intentional.

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REFERENCES


The Editors welcome contributions to Pathological Case of the Month, Picture of the Month, and Radiological Case of the Month. Those who wish to contribute should send their manuscripts to Dr Gilbert-Barness (Pathological Case of the Month), Department of Pathology, Tampa General Hospital, University of South Florida, Davis Island, Tampa, FL 33606; Dr Tunnessen (Picture of the Month), The Children’s Hospital of Philadelphia, 34th Street and Civic Center Boulevard, Philadelphia, PA 19104; or Dr Wood (Radiological Case of the Month), Department of Radiology, Children’s Hospital Los Angeles, 4650 Sunset Blvd, Los Angeles, CA 90027. Articles and photographs accepted for publication will bear the contributor’s name. There is no charge for reproduction and printing of color illustrations.