Nursing Practice

Case study

Intussusception

Vomiting, abdominal pain and blood in stools are the classic triad that should alert nurses to the possibility of intussusception in a child.

An infant with intussusception

Intussusception

Intussusception is defined as: “invagination or telescoping of proximal loop of intestine (intussuscipiens) and leads to bowel obstruction” (Rogers and Robb, 2010). This leads to impaired venous return, incarceration and finally necrosis of the trapped segment (Nylund et al, 2010).

It is the most common surgical emergency in infants and young children. Patients may present with the classic triad of symptoms – abdominal pain, vomiting and blood in stools – although 75% of children present with only two symptoms (Paul et al, 2010).

Intussusception has a male preponderance (four males to every one female) and is most common in children under two years of age, with a peak incidence between four to nine months (Paul et al, 2010).

Aetiology remains idiopathic in younger children and may be preceded by a viral upper respiratory tract infection or gastroenteritis-like illness (Rogers and Robb, 2010). Bacterial enteritis has been identified as a significant risk factor for developing intussusception (Nylund et al, 2010).

Intussusception most often occurs in the ileocolic region (80% of cases) but can appear in any part of the intestine (Rogers and Robb, 2010). Ultrasound is usually used to diagnose the condition, and treatment by radiological reduction (air or contrast enema) is successful in most cases (Paul et al, 2010).

Patient history

An eight-month old baby, previously healthy, presented with a 36-hour history of non-bilious vomiting after every feed and one episode of blood tinge per rectum. This was diagnosed as gastroenteritis in infancy; however, over the next 24 hours vomiting and blood in stools persisted, along with fever.

The baby was transferred to the regional paediatric surgical unit where an abdominal X-ray showed evidence of bowel obstruction (Fig 1). It should be noted that a normal abdominal X-ray does not rule out intussusception.

Development and management

About six hours after admission, he had an episode of bilious vomiting and passed blood with mucous per rectum. Abdominal examination at this point revealed a suspicious mass and an abdominal X-ray showed evidence of bowel obstruction (Fig 1). He was admitted to the ward, blood investigations were done and he was started on intravenous fluids in order to rest the gut.

Blood investigations showed a C-reactive protein level of 48mg/L, but were otherwise within normal limits.

Progress

The baby was discharged after 48 hours and his parents were advised to seek medical advice if symptoms recurred. It is important to note that 10% of children who have reduction by the non-invasive enema method can develop intussusception again and will need surgical correction (Paul et al, 2010).

Conclusion

This case illustrates the importance of being aware of this common surgical presentation in early childhood and of being suspicious of intussusception if vomiting with abnormal abdominal examination or blood per rectum is present.

References


Keywords: Intussusception/Classic triad/Ultrasound/Enema reduction

Fig 1. An X-ray, taken after an examination, showing evidence of a bowel obstruction.