

Bacterial meningitis associated with intussusception

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Intussusception is the most common cause of intestinal obstruction between 3 months and 6 years.¹ In Britain, incidence is between 1-2/1000² live births and the male to female ratio is 2.1:1.³ This significantly varies among different countries. In the Kingdom of Saudi Arabia (KSA), though the exact incidence is not precisely coded but the male to female ratio was reported in one study as 1.2:1.⁴

In the majority of cases, there is no underlying cause.⁴ An article was published concerning intussusception associated with bacterial meningitis⁵ and a 14-year-old boy with appendicitis and brain abscess was reported.⁶ Altered mental status with painless intussusception was reported in a 7-month-old child.⁷

In the Department of Pediatrics, Armed Forces Hospital Southern Region, Khamis Mushayt, KSA a 6-month-old boy was presented with one-day history of vomiting, ending with yellowish green vomitus. The child was irritable and excessively crying. He had fever and few hours later, he started to have bloody diarrhea of modest amount associated with mucous. No urinary symptoms and no other complaints. He was one of a twin delivered through cesarean section at term with birth weight of 2.6 kgs. The other twin was normal. He had an uneventful course since then. He has other 4 healthy siblings to non-consanguineous parents.

During admission, he was looking ill with moderate dehydration; but he was afebrile and with no pallor. His abdomen was soft; lax and there were no signs of meningeal irritation. He was admitted as a case of gastroenteritis with bloody diarrhea to exclude intussusception. Surgical consultation and ultrasound abdomen revealed a mass occupying umbilical as well as right upper quadrant area (**Figure 1**). There were no tenderness, and bowel sounds were positive. He went through exploratory laparotomy where diagnosis of ileo-colic intussusception was confirmed, and right hemicolectomy was carried out. The patient tolerated the procedure well, and he was transferred to the intensive care unit uneventfully. He had one attack of generalized tonic-clonic convulsions, and he was found to have hyponatremia and



Figure 1 - Ultrasound of abdomen revealed a mass occupying umbilical as well as right upper quadrant area.

hypomagnesemia. Convulsions did not recur after correction of sodium and magnesium. The child was transferred to the pediatric ward one day later, and he was started gradually on feeds. Two days later, he was taken to the operating room due to wound gapping; where wound was found uninfected and sutures were intact. The anastomotic site was intact, and the bowel appeared normal, apart from some adhesion to skin at dehiscence site. He was in good condition postoperatively, and he was recommenced on feeds. He was discharged in good condition 6 days after reopening. Five days post-discharge, he was readmitted with upper respiratory tract infection. He was febrile (38.5°C to 39.4°C). He had frequent loose motions but no vomiting. Cultures including blood, urine, stool and nasal swabs were all negative. Ultrasound abdomen showed no collections.

Despite easy consolability of the baby, he appeared somewhat irritable. Lumbar puncture was discussed with parents, and a sign consent was taken. The child was started on Ceftriaxone and Vancomycin immediately after lumbar puncture.

Cerebrospinal fluid showed 10 leucocytes, 8 were polys. CSF sugar was 2.7mmol/L, but no organism was found. It was interpreted as partially treated meningitis. (The baby received a course of antibiotics postoperatively). The computerized tomography scan of the brain was normal. The child completed 14 days of antibiotics and was discharged in good condition.

Received 13th July 2004. Accepted for publication in final form 19th October 2004.

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