Case Report

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Jejuno-Jejunal Intussusception Caused by Meckel's Diverticulum in a Neonate: A Case Report

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ABSTRACT

Background: Intussusception is very rare in neonatal ages. It's one of differential diagnosis in gastrointestinal obstructions.

Case Presentation: We reported a 5-day-old baby who had bilious vomiting after every feeds. The baby had no bloody stool. She was admitted in NICU to rule out gastrointestinal obstruction. There was neither abdominal distension nor palpable abdominal mass. Abdominal ultrasonography was normal. Abdominal plain x-ray showed cut off sign and gray abdomen, intestinal loops were full of fluids. The patient underwent laparotomy. Jejuno-Jejunal intussusception was diagnosed. There was a diverticulum next to invagination area which was resected.

Conclusion: Intussusception has to be in differential diagnosis of gastrointestinal obstruction and NEC. Abdominal ultrasonography and x-ray can be helpful in diagnosis. It might have high mortality and morbidity rates in case of late diagnosis and management.

Introduction

Intussusception is one of the surgical emergencies in neonates. It is more common in 9 to 36 months of ages. Clinical findings are abdominal distension and persistent bilious vomiting. Necrotizing enterocolitis (NEC) is one of its differential diagnosis. Abdominal ultrasonography and plain x-ray helps in diagnosis. The most common types are ileoileal and ileocolic.

The patient we reported was a 5-day-old female neonate with Jejuno-Jejunal intussusception which its cause was presence of a diverticulum intussusception area.

Case presentation

A 5-day-old Iranian female newborn was

admitted in hospital with chief complaint of bilious vomiting. Her mother stated that her baby seemed to be healthy since birth until 2 days prior to presentation.

She also noticed that her baby vomited her breast milk after every feed. The vomiting was bilious. The baby had no bloody stool.

The baby was term, delivered by normal vaginal delivery with birth weight of 3200 grams and APGAR of 8 and 10 at first and 5th minutes after birth, respectively. There were no complications at delivery. The baby was discharged after one-day of hospital stay. She was breast-fed exclusively. She normally passed meconium in first 24 hours after birth. Her mother denied any past medical history. She took routine vitamins during pregnancy. The newborn was vaccinated against Hepatitis B and BCG at birth.

Upon admission, baby had no respiratory distress. The jaundice spread to abdomen. Skin turgor was normal. Baby was hemodynamically stable. She had no sign of dehydration. She was normocephalic, with no cephalohematoma. There was no evidence of increased work of breathing. Lungs were clear to auscultation bilaterally. Her heart had regular rate and rhythm with normal sounds. Abdomen was soft in exam without any distension. No organomegaly or any mass were palpable. Bowel sounds were present. Umbilicus was healing well – there was no erythema, discharge or foul smell; Baby had normal female genitalia. She moved all extremities symmetrically with appropriate tone and had normal symmetrical neonatal reflexes.

Laboratory tests were: CBC: WBC 16.4 × 10^3/µL, Hgb 14.9 g/dL, Hct 42.8%, Plts 334 × 10^3/µL, RBC 4.39 × 10^6/µL, Total bilirubin 9.3 mg/dL, direct bilirubin 0.7 mg/dL, ALT 7 IU/L, AST 19 IU/L, AlP 285 IU/L, urine sample collected by catheter, which was negative for bacteria, leukocyte esterase, nitrite, WBC and RBC.

An orogastric tube was inserted, and the gastric aspirate was bilious. The patient was kept NPO and was given intravenous fluids and widespread antibiotics. Sepsis work up was done, which was normal. Possibility of NEC was considered. Abdominal plain x-ray had cut off sign and gray abdomen; the intestinal loops were full of fluids suggesting an obstruction. An abdominal ultrasounography was normal. The patient underwent laparoscopic surgery. There was intussusception of jejunum in 15 centimeter ligament of Treitz .The intussuscepted part was resected and end to end anastomosis was done. Moreover, there was a mass proximal of invaginated jejunum that was resected too. The first specimen was pathologically reported as jejunal invagination. The wall of intestine was necrotized and perforated. The resected area proximal to intussusception was reported pathologically as diverticulum. The patient was discharged 12 days later with no complication.

Discussion

Intussusception is a surgical emergency in which a part of intestine invaginates into another part. Its etiology is unknown.[1,2] Intussusception in neonates is very rare. A lead point to cause intussusception found in only 8% of cases.[3] hamartoma, duplication and Meckel's diverticulum are associated with intussusceptions.[4,5]

Clinical presentation is repeated bilious vomiting. NEC is the first differential diagnosis and it's more common than intussusception.[6,7]Abdominal ultrasonography and x-ray can be helpful in diagnosis.[5,8-10] Ultrasound is a good imaging tool for early diagnosis of intussusception in neonates.[11] However abdominal sonography in our case was normal.

Dilated bowel loops are the most frequent imaging finding in neonates with intussusception.[11] Similarly, our case's radiograph of the abdomen showed dilated loops of small intestine and also cut off sign and gray abdomen. There were no charachteristic radiologic signs of NEC such as Pneumatosis intestinalis or portal venous gas.[12] We presented a case with Abdominal distension and bilious vomiting which her abdomenal sonography was normal,

abdominal x-ray showed cut off sign and gray abdomen.The patient underwent laparotomy, jejunojejunal intussusception was diagnosed. There was a 5*30 mm mass proximal to intussusception area which was resected and pathologically reported as a diverticulum. Necrotized perforated part of jejunum was resected and end to end anastomosis was done. The patient discharged 12 days later.

Conclusion

Intussusception has to be in differential diagnosis of gastrointestinal obstruction and NEC. Abdominal ultrasonography and x-ray can be helpful in diagnosis. It might have high mortality and morbidity in case of late diagnosis and management. So high suspicion is needed for early diagnosis. Intussusception is a surgical emergency and has to be managed in urgency.

Conflict of Interests

Authors have no conflict of interests.

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