Small bowel intussusception in an adult with nephrotic syndrome

Sir,

A 27-year-old male was admitted to our hospital with acute colicky pain abdomen, abdominal distention for 4 days with no passage of stool for the same duration. He also had swelling of bilateral lower limbs for a week. Examination showed mild pallor, tachycardia and blood pressure of 80/60 mmHg. Abdomen was distended and tender with sluggish peristaltic sounds. Patient had a past history of nephrotic syndrome during childhood for which he was treated with steroids and he had frequent relapses. He was treated with cyclophosphamide at the age of 17 years, after which he remained asymptomatic. The straight X-ray abdomen showed distended small bowel loops. He was managed conservatively with intravenous crystalloids, Ryle's tube aspiration and antibiotics. He had Hemoglobin of 10.9 g/dl, normal liver function test and urea: 53 mg/dl, creatinine: 1.9 mg/dl. Blood triglyceride and cholesterol level were: 872 mg/dl and 345 mg/dl respectively. His serum albumin was: 1.8 g/dl and urine for Albumin creatinine ratio was 1072 mg/dl. Serum amylase and lipase were within the normal limits. Autoimmune serology was negative and complement level was normal. Ultrasonography showed distended small bowel loops, normal pancreas, normal renal size and echotexture and normal renal vein. The findings were suggestive of intussussception of the bowel with a typical "crescent in doughnut" sign [Figure 1]. This is formed by hypoechoiec intussusceptum surrounding hyperechoiec mesenteric fat.[1] Percutaneous renal biopsy demonstrated features consistent with minimal change disease. Patient improved with conservative management.

Nephrotic syndrome may be associated with gastrointestinal disturbances. The differential diagnosis considered in this setting is renal vein thrombosis, peptic ulcer disease and sub-acute bowel obstruction. Ultrasonography is the diagnostic tool of choice to detect intussusception. In our case, presence of hypertriglyceridemia initially tempted us to make pancreatitis as a provisional diagnosis. Intussusception has been reported frequently in pediatric

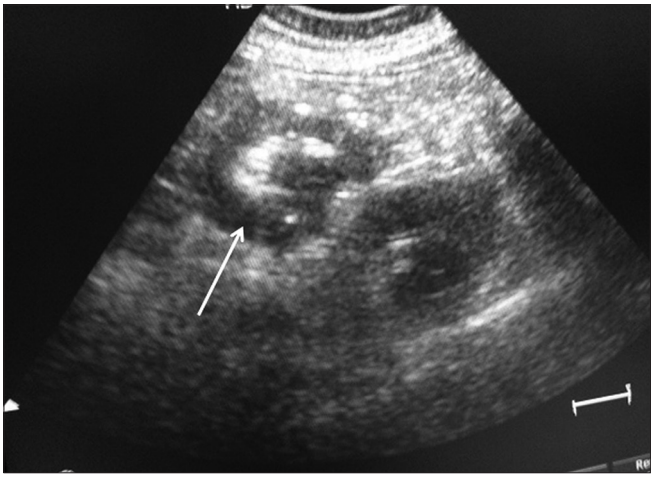

Figure 1: Transverse view of intussusception in ultrasonography producing the "crescent in doughnut"sign (white arrow)

population, but it is uncommon in adults with nephrotic syndrome. Intussusception of small bowel in adult with nephrotic syndrome presenting with swollen limbs and effusion has been reported before.[2] Intussusception in nephrotic syndrome may be due to incoordinated gut motility and bowel wall edema. As seen in our patient, intussusception resolves with treatment of the underlying nephrotic syndrome without the need for any intervention.[3,4] Reversal of intussusception associated with nephrotic syndrome by infusion of albumin has been reported in pediatric patients.[5] In spite of good prognosis of childhood minimal change disease, approximately 20% continue to relapse 10 years after diagnosis, as seen in our case.

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