

Clinical Image

Enterolithiasis in a Newborn with Anorectal Malformation

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Figure 1: Plain abdominal radiograph showing calcified meconium pellets in dilated colon (enterolithiasis).

A full-term, male newborn, of G8P3A5 mother, (weight 2530g) born with anorectal malformation (Imperforate anus). The baby also passed meconium per urethra. Echocardiogram revealed pulmonary artery atresia, large ventricular septal defect, overriding of aorta and small patent ductus arteriosus (PDA). Abdominal x-ray examination showed numerous well defined radio-opaque shadows mainly in the dilated colon (Fig.1), along with deformed sacral vertebrae. Colostomy was formed after initial stabilization, which confirmed presence of enterolithiasis within lumen of the colon.

Intraabdominal calcifications in newborn can be attributed to a host of pathologies such as meconium peritonitis, meconium pseudocyst, enterolithiasis or calcification within solid organs like liver. Meconium peritonitis causes diffuse, linear, plaque-like areas of calcification throughout the abdomen; in male neonates, calcification in scrotum is an important sign of meconium peritonitis.[1,2] Enterolithiasis are intraluminal and usually displace with peristalsis and ultimately evacuated if distal obstruction is not present. Plain

radiography, ultrasonography, and MCUG (in case of recto-urinary fistula) demonstrate intracolonic location of the calcifications. In female infants with persistent cloaca, calcified pellets can be located exclusively within the urogenital sinus part of cloaca.[3] Infrared spectrophotometry of the intraluminal calcified meconium revealed ammonium and uric acid. The enterolithiasis might be formed due to mixing of meconium and fetal urine in case of recto-urinary fistula; stasis and change in pH presumably cause precipitation of the

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calcium salt thus forming enteroliths.[1,2] There are two types of enterolithiasis: string of pearls calcification (associated with hereditary multiple gastrointestinal atresias); and punctuate or rounded calcifications (associated with anorectal malformation, single intestinal atresias, colonic aganglionosis etc.).[2]

Consent: Authors declared that they have taken informed written consent, for publication of this report along with clinical photographs/material, from the legal guardian of the patient with an understanding that every effort will be made to conceal the identity of the patient however it cannot be guaranteed.

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