Meckel Diverticulum

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History
4 year female with chronic intermittent abdominal pain.

Diagnosis
Meckel Diverticulum

Discussion
The omphalomesenteric (vitelline) duct is the embryonic communication between the yolk sac and the developing midgut. Incomplete atrophy of the omphalomesenteric duct may result in a variety of anomalies: umbilicoileal fistula, omphalomesenteric duct sinus, omphalomesenteric duct cyst, fibrous connection of the ileum to the umbilicus, or Meckel diverticulum.
Meckel diverticulum accounts for 98% of omphalomesenteric duct anomalies. The diverticulum results from fibrous obliteration of the umbilical end of the omphalomesenteric duct and complete patency of the ileal end. The diverticulum is on the antimesenteric side of the ileum and may connect to the umbilicus by a fibrous band if the fibrous portion of the duct fails to be completely obliterated and absorbed. The diverticulum is usually found within 100 cm of the ileocecal valve. The arterial blood supply and venous drainage of a Meckel diverticulum are through remnants of the embryologic omphalomesenteric (vitellointestinal) vessels.
Meckel diverticulum occurs in 2%–3% of the population. There is no known gender predilection for the formation of Meckel diverticulum however, symptomatic Meckel diverticulum is more common in males than females. Meckel diverticulum has no associations with other major congenital malformations although there is a higher prevalence in patients with Crohn disease.
Clinical symptoms from complications of Meckel diverticulum occur more commonly in children than adults. Sixty percent of Meckel diverticula become symptomatic before patients reach 10 years of age. Hemorrhage is the most frequent complication in the pediatric population, and it is almost always associated with peptic ulceration from heterotopic gastric mucosa located within the diverticulum. Intestinal obstruction is the second most common complication. It is usually seen in older children and adults.Enteroliths are a rare complications . Meckel diverticula may be involved in various hernias.
Meckel diverticulum is identified as a saccular, blind-ending structure located on the antimesenteric border of the ileum. The antimesenteric location can be confirmed from the position of the diverticulum, which faces away from the axis of the root of the small intestinal mesentery. Meckel diverticulum is usually found in the right lower quadrant and pelvic region, but it may have a periumbilical location. Periumbilical or midabdominal locations may be secondary to adhesions or congenital bands. The junction of the diverticulum with the ileum may show a mucosal triangular plateau or triradiate fold pattern which represents the site of omphalomesenteric duct attachment to the ileum. Filling defects, representing enteric contents or stones, may be seen.

Findings
FL-Three fluoroscopic spot images showing a tubular blind-ending structure extending into the pelvis.

Reference

Levy AD, Hobbs CM. Meckel diverticulum: Radiologic features with pathologic correlation. Radiographics (2004); 24:565-587.

Contributor

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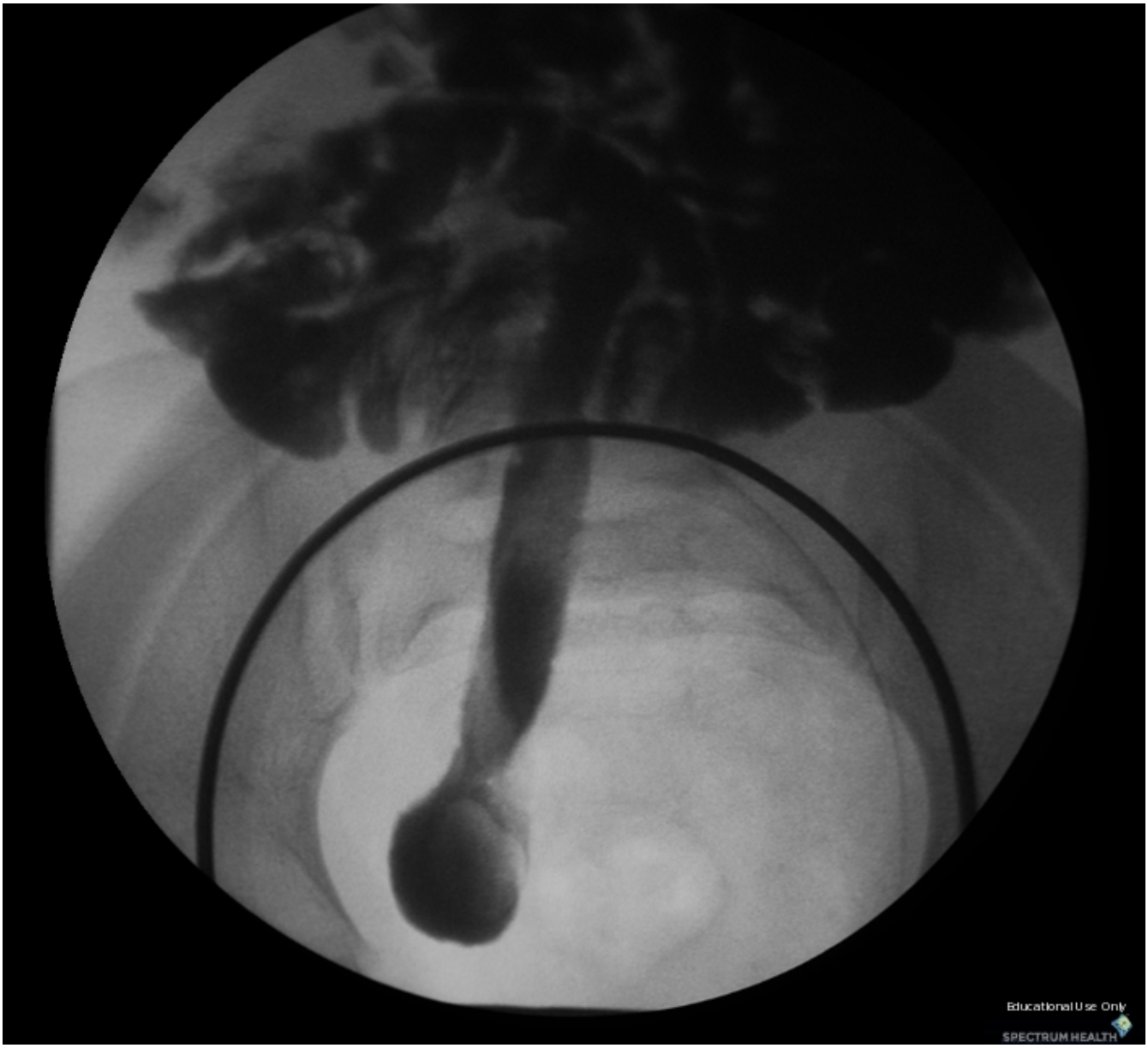
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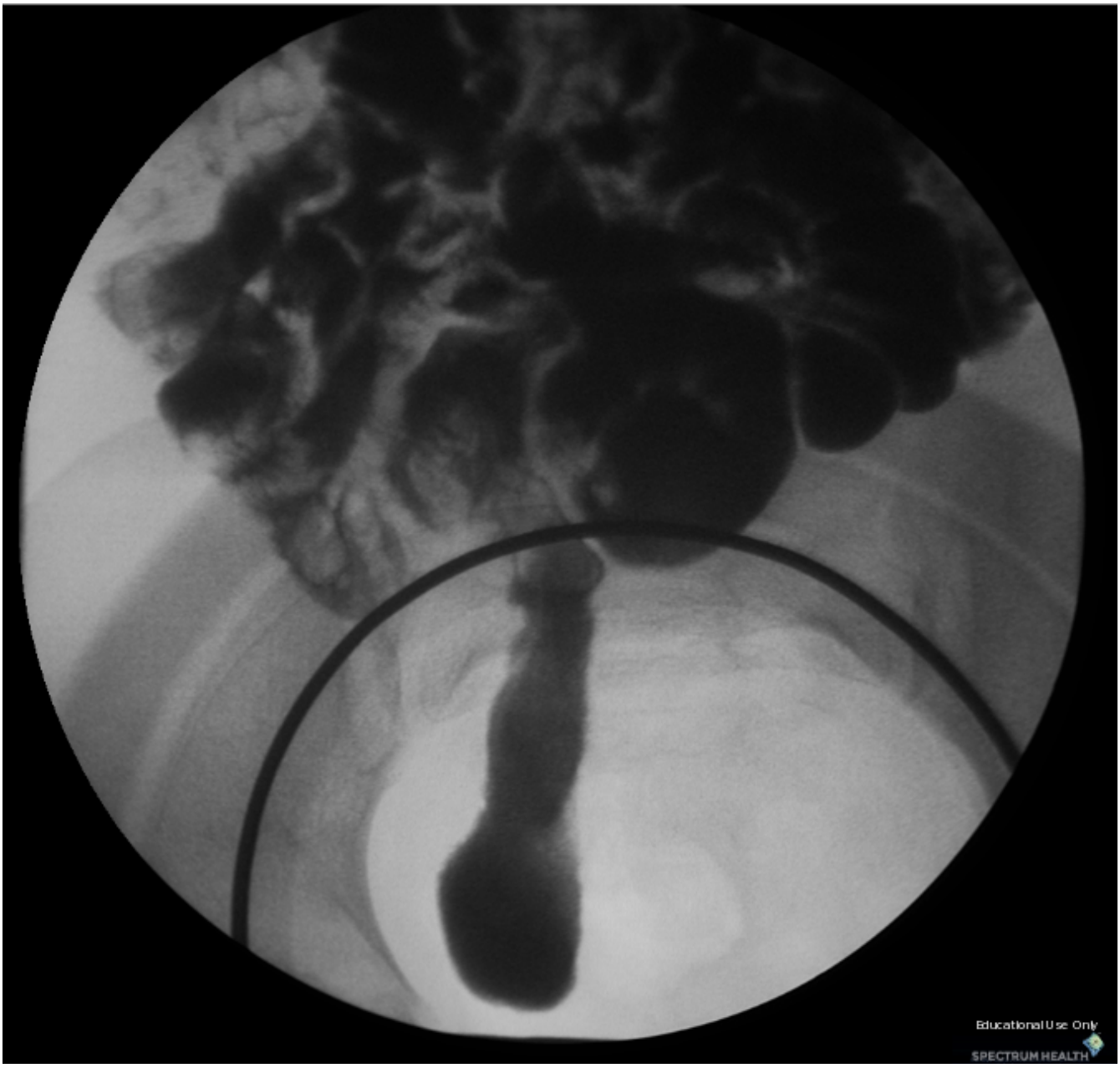
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