



## Pneumoscrotum: A sign of intestinal perforation in a preterm neonate

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### Abstract

A preterm male newborn, treated in the neonatal intensive care, presented with mild abdominal distension and enlarged inguinal hernias, in his second week of life. Plain radiographs showed pneumoscrotum and a falciform ligament sign. An exploratory laparotomy was performed, confirming the diagnosis of spontaneous intestinal perforation.

When the suspicion of gastrointestinal perforation is raised, careful consideration of every radiological or clinical sign is essential in order to achieve early diagnosis. In this case, pneumoscrotum played an important diagnostic role and should not be misinterpreted as an inguinal hernia.

**Keywords:** Pneumoscrotum; Necrotizing enterocolitis; Neonatal intensive care.

### Case description

A preterm male newborn was being treated in the neonatal intensive care unit for sepsis (staphylococcus epidermidis), bronchopulmonary dysplasia and an intraventricular hemorrhage. He was born by an emergency cesarean section after placenta abruption, at 24 weeks and 4 days of gestation. Birth weight was 780 g. He was on enteral and parenteral feeds. He was kept under mechanical intermittent positive pressure ventilation since birth.

On the 12<sup>th</sup> day of life, the patient presented with respiratory instability, demanding higher levels of FiO<sub>2</sub>, and regular ventilatory parameters adjustments. The surgical team was called to evaluate a mild abdominal distention. During physical examination, a distended but non tender abdomen was noticed, with audible normal bowel sounds. Known bilateral inguinal hernias were enlarged and difficult to reduce. Blood analysis showed

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no leukocytosis, normal platelet count and a normal C-reactive protein level.

Plain radiographs showed two areas of radiolucency in the scrotum indicating the presence of air, and a falciform ligament sign.

Bowel perforation was suspected, and an exploratory laparotomy was performed: A single perforation was noted in the terminal ileum, close to the ileocecal valve. The perforation was closed with interrupted suture, and an ileostomy was performed proximal to the suture.

Two months later, the patient underwent ileostomy reversal and bilateral correction of the inguinal hernias. The first year of follow-up was uneventful [1-4].

**Consent:** A written informed consent has been obtained from the guardian of the patient for the publication of this case.

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**Figure 1:** Abdominal radiograph revealed a distended scrotum with air (white arrows) and a falciform ligament outlined with free abdominal gas (falciform ligament sign) – black arrow