

IMAGES IN CLINICAL PRACTICE

PNEUMOSCROTUM: A RARE PRESENTATION OF NEONATAL NECROTIZING ENTERO-COLITIS

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KEYWORDS

neonate, enetrocolitis, abdominal distension, air leak.

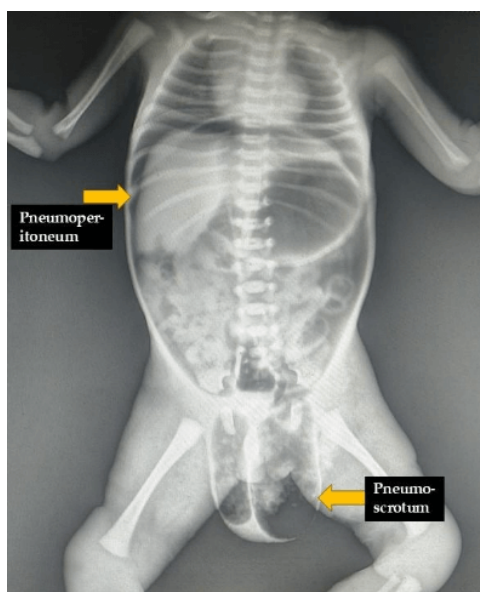
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A 3-day-old, 32-weeker male neonate with a birth weight of 1340 grams, was admitted for respiratory distress and abdominal distension. On examination, the abdomen was distended with bilateral scrotal swelling. Transillumination was observed in the scrotum. X-ray showed features of neonatal necrotizing entero-colitis (NNEC) with free air in the peritoneum and scrotum. As the neonate was in a moribund state, bilateral flank drain insertion was done and the neonate expired the next day.

Figure 1. X-ray showing Pneumoperitoneum and Pneumoscrotum.

*What is the diagnosis?*

Pneumoscrotum is characterized by the presence of air in the scrotal sac.¹ It is very uncommon in the newborn. In this condition, air can descend to the scrotum from the peritoneum, commonly after a bowel perforation. The air can descend to the scrotum

rarely from the lungs or mediastinum.² Injury to the scrotum or its gangrene has also been reported to cause pneumoscrotum. In newborns, pneumoscrotum is usually a consequence of perforation of the intestines in NNEC, like in this neonate. This condition is usually diagnosed clinically and the X-rays aid in the confirmation of the diagnosis and the localization of the origin of the air leak.³ Although pneumoscrotum is a benign clinical sign, its cause determines the outcome.⁴ Prompt treatment of the underlying cause is warranted, once pneumoscrotum is diagnosed. This neonate had intestinal perforation resulting from NNEC. The Pneumoscrotum in this neonate is the result of the entry of air from the peritoneum to the scrotum. The patent process vaginalis in neonates makes this entry of air possible.

Compliance with ethical standards

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Conflict of Interest None

References:

1. Angurana SK, Kanojia RP, Peruri G, Sundaram V. Pneumoscrotum as a presentation of necrotising enterocolitis. *BMJ Case Reports*. 2018 Oct 21;bcr-2018-227300.
2. Khan YA, Akhtar J. Pneumoscrotum: a rare presentation of gastric perforation in a neonate. *APSP J Case Rep*. 2010 Jul;1(2):15.
3. Grassi V, Pansadoro A, Cochetti G, Barillaro F, Cottini E, D'Amico F, et al. Pneumoscrotum: Report of two different cases and review of the literature. *Therapeutics and Clinical Risk Management*. 2015 Apr;581.
4. Millmond SH, Goldman SM. Pneumoscrotum after spontaneous pneumothorax with air leak. *Journal of Urology*. 1991 Jun;145(6):1271-2.

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