

# Pneumosrotum as the Presenting Symptom of Pneumothorax and Pneumoperitoneum after Jet Ventilation

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**A** 46-YR-OLD male presented with pneumosrotum in postoperative recovery following dilation of tracheal stenosis using carbon dioxide laser and jet ventilation



through a catheter. The patient developed stenosis after closure of a tracheostomy, which occurred during recovery from trauma involving vertebral, rib, and pelvic fractures as well as bilateral pneumothoraces. The patient was initially jet-ventilated through a 14 French catheter. After sufficient dilation, this was replaced with a 5.0-mm laser-shielded endotracheal tube, and the patient was ventilated uneventfully for the remainder of the case. The patient was extubated without incident and was recovering comfortably when he complained of scrotal fullness and, in addition to the pneumosrotum, was found to have a large right pneumothorax and pneumoperitoneum. A chest tube was placed and, 5 days later, the pneumothorax and pneumosrotum had resolved.

Since 1960, there have been 11 case reports of pneumosrotum caused by pneumothorax. Pneumosrotum has a diverse differential diagnosis.<sup>1,2</sup> Underlying causes can be categorized by three routes of air entry into the scrotum: 1) dissection of subcutaneous or retroperitoneal air into dartos lining of the scrotal wall; 2) movement of intraperitoneal air through a patent processus vaginalis; and 3) local gas production or introduction because of infection or injection.<sup>2,3</sup> The cause in this case was clearly localized high airway pressure from jet ventilation transmitted to the scrotum by the first or second routes above. In this case, the only presenting symptom of life-threatening pathology was the pneumosrotum.<sup>2,3</sup> Although rare in the perioperative setting, the diagnostic implications should be recognized when discovered, and precipitate a prompt search for the cause.

## References

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