



Iatrogenic Thoracic Subcutaneous Emphysema, Pneumothorax, Pneumomediastinum and Pneumoperitoneum in a Preterm Baby Following a Difficult Intubation

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Clinical Image

Iatrogenic tracheobronchial perforation is a rare complication of endotracheal intubation in neonates and carries a mortality rate of 70% [1]. Baby Swas born at 27+5 week's gestation weighing 838 g. Elective intubation was performed at 30 hours of age due to respiratory distress. The procedure was successful after 7 attempts, following which, crepitus was palpable in the neck and chest wall and a right-sided pneumothorax (Figure 1) was identified. 100mls of air were aspirated via needle thoracocentesis and a chest drain inserted. A Penrose drain was inserted in view of a pneumoperitoneum. 80mls of air were aspirated subcutaneously from the thoracic emphysema. He was successfully extubated at 8 days of age and discharged home self-ventilating and on full enteral feeds. Conservative management of tracheal injury involves passing an endotracheal tube beyond the perforation, mechanical ventilation for 7-10 days using low ventilatory pressures or high-frequency oscillation, drainage of the accumulated air and adequate sedation [1,2].

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Figure 1: (A) Serial X-ray images of Baby S following intubation. (B,C) Note initial extensive thoracic emphysema, pneumomediastinum and pneumoperitoneum and gradual resolution of this air leak following insertion of chest and peritoneal drains and needle aspiration of thoracic emphysema.

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