



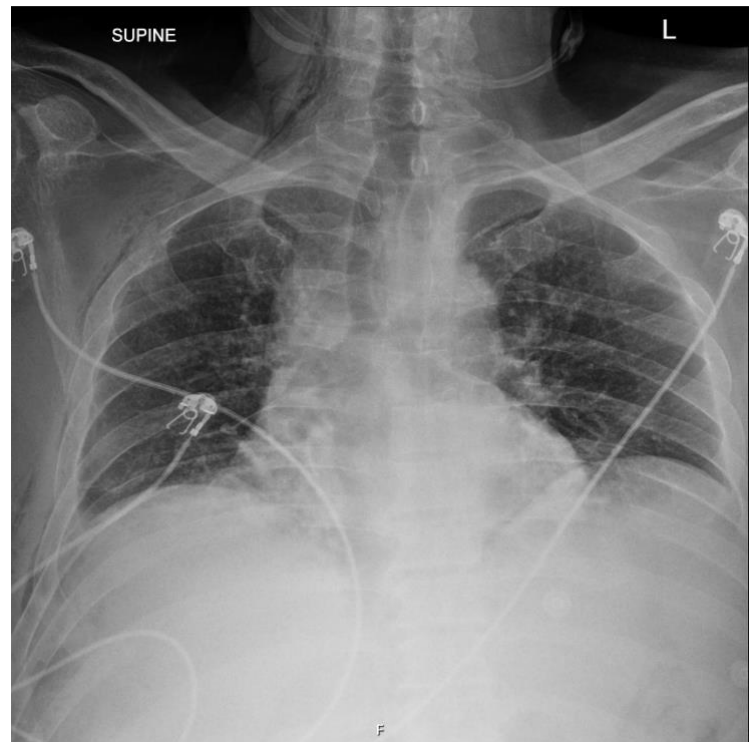
Critical Findings of Routine Chest X-ray in the Management of HHS and Sepsis

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What pathology is demonstrated by this chest X-Ray?

Possible Diagnoses

- Widened mediastinum concerning for aortic dissection
- Right lower lobe consolidation indicative of pneumonia
- Evidence of gas forming bacterial infection
- Pneumothorax



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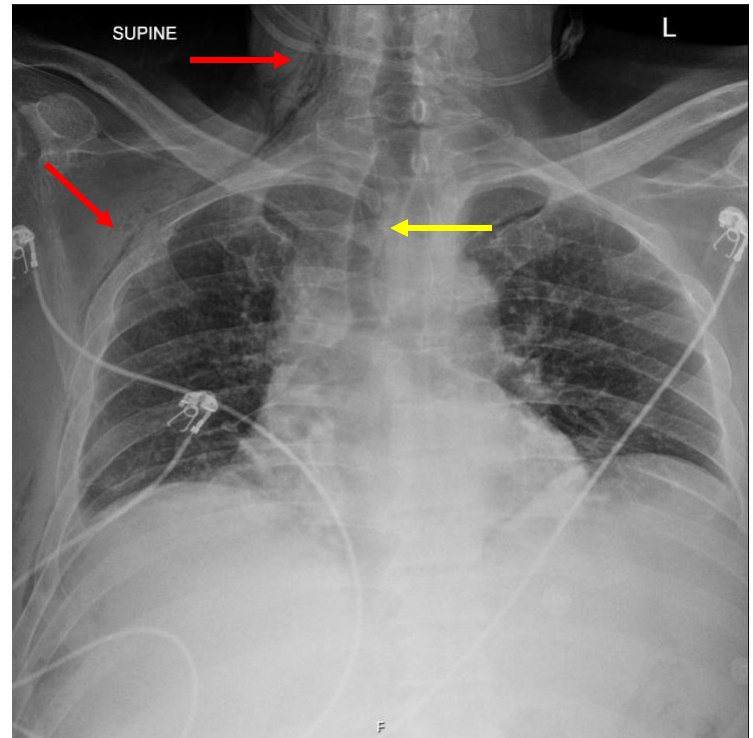
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Answer: Evidence of gas forming bacterial infection

Discussion

The image demonstrates subcutaneous air in the right lateral neck and chest (red arrows) also demonstrating atelectasis of right lung secondary to shallow inspiration. Note the tracheal shift consistent with atelectasis (yellow arrow). Apart from localized crepitus at right chest and neck, there were no open wounds, overlying erythema, or bullae. CT imaging was obtained which revealed air foci that tracked from occiput to the right lower extremity past the knee. Notably, there was a prostatic abscess seen on CT abdomen/pelvis with air tracking into the right hip. The patient was taken emergently to the OR for surgical debridement of necrotizing soft tissue infection (NSTI) in concert with urology and orthopedics for drainage of prostatic abscess and washout.

Despite striking morbidity and mortality, findings for NSTI are often subtle and can be easily overlooked. Fever, for example, is only present in approximately 25-40% of patients.¹ Scoring systems have been proposed to facilitate early detection. Laboratory Risk Indicator for Necrotizing Fasciitis (LRINEC), originally developed by Wong et al, was initially purported as a robust means of detecting early case of NSTI.² However, subsequent research has shown poor sensitivity and specificity.^{3,4} Relying blindly on scoring system alone such as LRINEC can unintentionally confer false reassurance and bias clinical suspicion. Additionally, the case underscores the importance of independently reviewing all images systematically and avoiding reliance on the “formal read”.



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References

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