

Technique for Safe Placement of a Dobhoff Tube without a Cortrak® Machine

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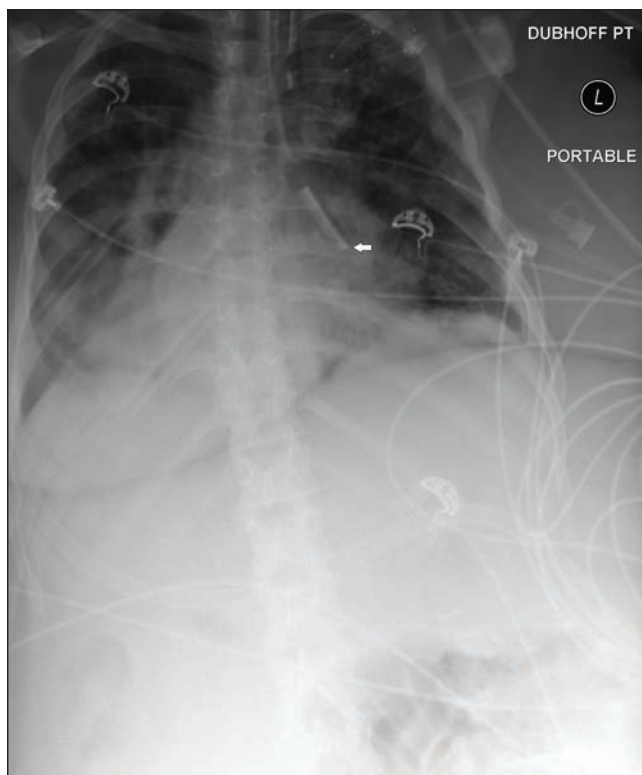


Figure 1: Dobhoff in left mainstem bronchus

A 58 year old female with a history of end stage renal disease on hemodialysis, insulin dependent diabetes mellitus, ischemic cardiomyopathy, and adrenal insufficiency, presented from home with altered mental status and hypotension. She developed refractory hypotension requiring vasopressors and was admitted to the medical ICU for management of septic shock due to bacterial peritonitis. She was intubated and had an oro-gastric tube placed for enteral nutrition. However, significantly elevated gastric residuals developed secondary to delayed gastric emptying. We decided to place a post-pyloric Dobhoff tube as an alternative gastric access to continue enteral feeding. Since a Cortrak machine (an electromagnetic-guided enteral access system) was unavailable, we used a

two-step approach with a portable chest x-ray to assess accurate and safe placement.

We followed the two-step bedside approach that was first described in 1989.¹ First, we advanced the tube to 30 centimeters and took a chest x-ray. As seen in **Figure 1**, the tip of the Dobhoff tube is in the left mainstem bronchus. If we had continued to advance the tube, we would have risked causing a pneumothorax. The tube was removed and re-advanced. **Figure 2** shows the tube well positioned in the esophagus. Finally, the Dobhoff tube is completely advanced. **Figure 3** shows the tip of the tube beyond the pylorus.

In patients suffering from critical illness who require intubation, enteral feeding is preferred. However, some patients develop high gastric residuals limiting feeding via oro- or naso-gastric tube. A post pyloric Dobhoff tube is an excellent alternative, although it can carry a serious risk of pneumothorax if placed blindly. When a Cortrak machine is not available, a two step technique using a chest x-ray to confirm placement in the esophagus and then through the pylorus is an effective way to prevent serious complications.^{2,3}

REFERENCES

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2. Krenitsky J. Blind bedside placement of feeding tubes: Treatment or threat? *Practical Gastroenterology.* 2011: 32.
3. Marderstein EL, Simmons RL, Ochoa JB. Patient safety: Effect of institutional protocols on adverse events related to feeding tube placement in the critically ill. *J Am Coll Surg.* 2004 Jul; 199(1): 39,47; discussion 47-50.

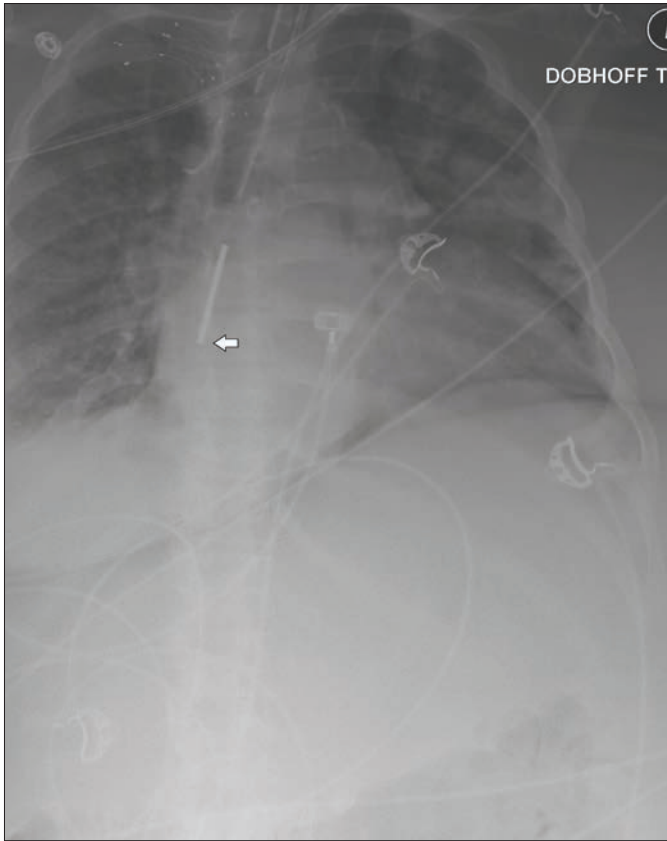


Figure 2: Dobhoff in the esophagus

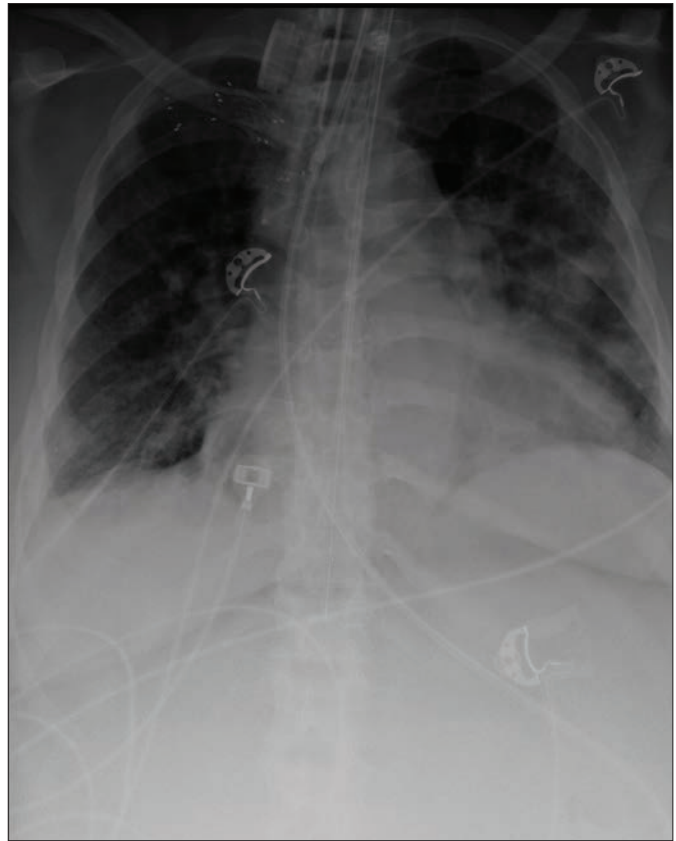


Figure 3: Dobhoff in post pyloric region