

Perforated peptic ulcer: Determinants of outcome and mortality

Sir,

Elective surgery for the management of peptic ulcer disease (PUD) has decreased significantly, but emergency surgical interventions for its complications are still common.^[1,2] The objective of our study was to identify variables that are associated with the outcome and mortality of this life-threatening condition.

Charts of patients operated for perforated ulcer in our department over 9 years were reviewed retrospectively. Forty-one patients were operated for perforated PUD. Overall mortality was 27%, mean age of the deceased was 75 vs 51 in the survivors ($P < 0.001$). Among the survivors, mean age of men was, significantly younger than women (46.4 vs 60.2; $P = 0.007$). Blood lactate levels were significantly higher in the deceased (5 vs. 2.2 mg/dl, $P = 0.019$), urinary amylase was significantly higher in the surviving patients (184.7 vs. 1538.31 mg/dl; $P = 0.007$), other variables were similar in both groups. Diabetes mellitus influence patient's outcome while history of PUD, smoking and the use of NSAIDs did not prove to do so. All variables were compared between patients younger and older than 60 years old. Younger males suffer more perforation ($P = 0.0001$) and suffer more of PUD prior to perforation. Perforation to operation interval is significantly longer ($P = 0.03$) in the older patients mostly due to delay in presentation to the hospital.

In conclusion our study shows that in perforated PUD, older age, elevated lactate levels and diabetes might predict an unfavorable outcome even among patients operated in a timely manner. Age is a primary independent risk factor for mortality in patients with perforated PUD. Younger patient suffer more of PUD preoperatively and perforation to operation interval in the older patients was significantly longer.

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All that wheezes is not asthma

Sir,

A 50-year-old female recently diagnosed with bronchial asthma presented with acute dyspnoea and wheeze. She did not respond to conventional treatment and progressed to acute respiratory failure requiring ventilation. The initial chest radiograph [Figure 1] was unremarkable. Two days later the patient developed left lung atelectasis [Figure 2], fiber optic bronchoscopy revealed a foreign body [Video 1], a betel nut in the left main bronchus. The betel nut [Figure 3] was removed and the patient was extubated five days later. The patient was a betel nut chewer and had aspirated it. Wheeze would have been heard due to a check-valve mechanism of airflow past the foreign body, and eventually a stop-valve mechanism, resulted in atelectasis [Figure 4].

Airflow through a narrow airway generates a coarse whistling sound, which is known as wheeze and is often equated with asthma. Chevalier Jackson recognized "all that wheezes is not asthma" and described the above mentioned mechanism of bronchial obstruction by a foreign body.^[1,2] Another cause of wheeze that is at time misdiagnosed as asthma is pulmonary edema. Described as "cardiac asthma", wheeze is heard due to bronchial wall and intraluminal edema fluid cause narrowing of the small airways.^[3] Other processes that narrow the diameter of an airway inducing wheezing include chronic obstructive pulmonary disease, endobronchial or endotracheal stenosis, buildup of airway secretions, endobronchial obstruction, upper airway obstruction, and allergic reactions.^[4]

Establishing that wheezing is not due to asthma requires attention to the patient's history, physical examination results, and response to therapy.



Figure 1: Chest radiograph on day 1 immediately after intubation unremarkable

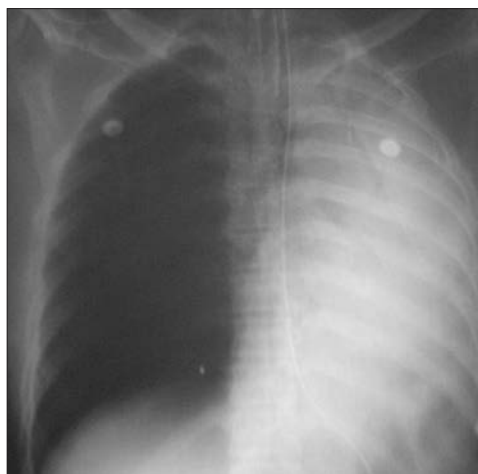


Figure 2: Chest radiograph on day 3, patient on ventilator, showing left ling atelectasis

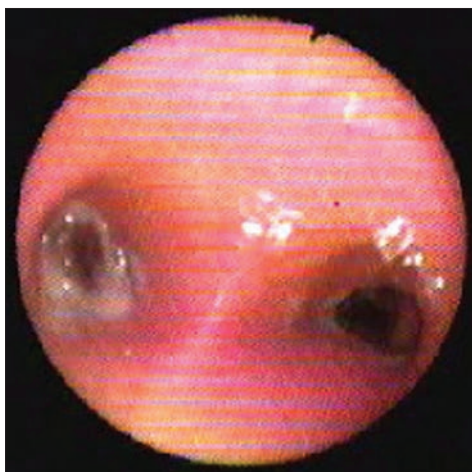


Figure 3: Emergency bronchoscopy revealed a foreign body in left main bronchus

Video available on www.onlinejets.org

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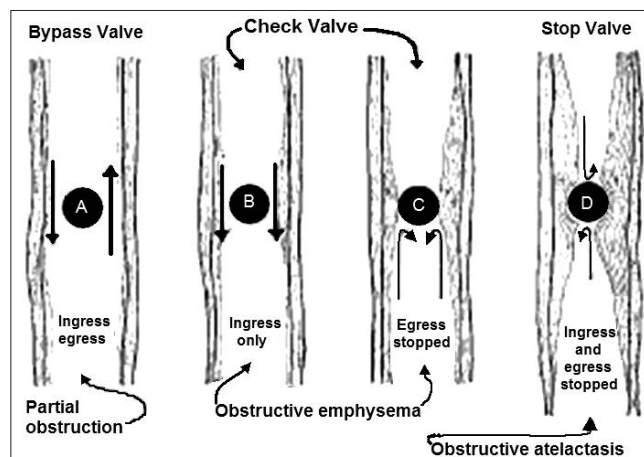


Figure 4: Pathogenesis of wheeze heard would have been due to a bypass/check-valve mechanism of airflow past the foreign body initially, and eventually a stop-valve mechanism, resulting in atelectasis

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