Spontaneous gastropleural fistula- a cause of high amylase pleural effusion.

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Background

High amylase pleural effusion remains an entity which includes limited differentials like pancreatitis,oesophageal rupture or malignant pleural effusion. High amylase effusions due to spontaneous Gastro-pleural fistula(GPF) are rarely seen.

Case presentation

A male in his 30s, who is a chronic alcoholic presented to our Emergency Department with complaint of dull aching abdominal pain involving the left hypochondrium and epigastrium for 2 years. During the last 15 days he also developed left sided chest pain. After 2 days of initiation of chest pain, there was increased breathlessness which progressed initially from medical research council mMRC 1 to mMRC 3. He also complained of cough which was aggravated by lying in left lateral position.

On respiratory system examination, there was decreased air entry on the left side, with decreased tactile vocal fremitus and vocal resonance on the left side of chest.

CXR showed hydro pneumothorax for which ICD was inserted .

Images

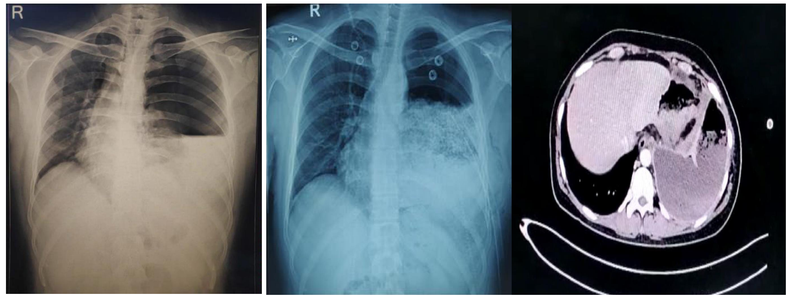

Fig. a) Chest x-ray on initial presentation ;fig b) Chest x-ray after ICD insertion
Fig c) CECT of the thorax and abdomen.

INVESTIGATIONS

Baseline blood investigation showed leukocytosis and pleural fluid bacterial culture revealed E. coli sensitive to Tigecycline & Colistin.CECT thorax with abdomen followed by Magnetic resonance cholangio-pancreatography ruled out pancreatitis. Oral oesophageal contrast study failed to demonstrate any perforation in view of nondependent location of gastropleural fistula.

In view of elevated pleural fluid amylase levels and high volume drain an upper gastrointestinal endoscopy was then performed which showed a large ulcer of size 8cmx6cm with a fistulous opening into pleura. A 1cm guide wire could be negotiated across ulcer base to the thoracic cavity(Image).

Management

A naso-jejunal tube was inserted to bypass gastropleural fistula following which the amount and turbidity of the ICD fluid reduced.The fistulous communication was clipped via upper Gastrointestinal endoscopy. Surgical resection of fistula was planned but patient acquired sepsis during the course of admission and the expired.

Images

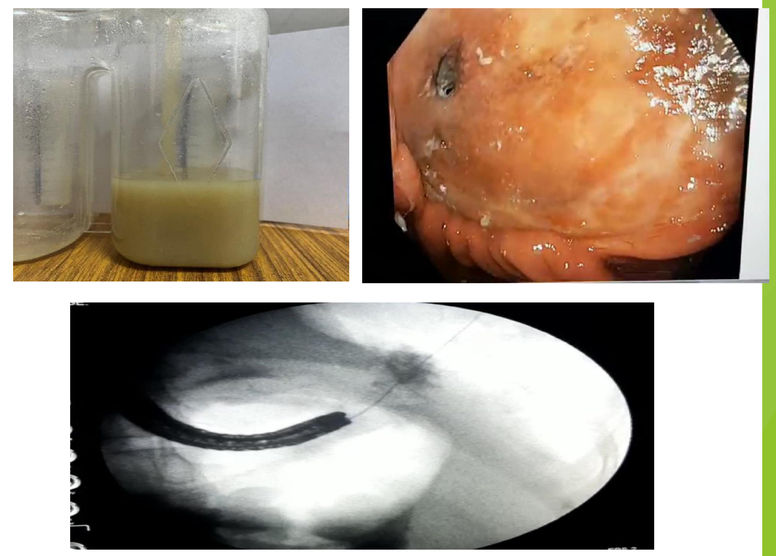

Fig.d) ICD drain showing thick yellowish drain Fig e) Upper gastrointestinal endoscopy showing rent in the fundal mucosa Fig f) Fluoroscopic visualization of the guidewire from fundus to the pleural space

Conclusion

GPF can be a rare cause of high amylase effusion

UGIE may prove definitive in such cases as even oral contrast failed to show tear

Aggressive & early surgical management is needed in such cases

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