

# AB136. SOH21AS046. Delayed gastropleural fistula: a rare cause of a persistent pleural effusion after blunt force trauma

Kin Yik Chan<sup>1</sup>, Shane Keogh<sup>1</sup>, Nitin Aucharaz<sup>1</sup>, Hugo Temperley<sup>2</sup>, James O'Driscoll<sup>3</sup>, Narayanasamy Ravi<sup>2</sup>, Shona Tormey<sup>1</sup>

<sup>1</sup>Department of Breast Surgery, University Hospital Limerick, Limerick, Ireland; <sup>2</sup>Department of General Surgery, St James's Hospital, Dublin, Ireland; <sup>3</sup>Department of Anaesthetics and Critical Care, University Hospital Limerick, Limerick, Ireland

**Background:** A gastropleural fistula (GPF) is a rare pathological connection between the stomach and pleural cavity. GPFs have been reported following traumatic diaphragmatic ruptures, perforated hiatal hernias and gastric fundal ulcers, and more recently, after bariatric surgery. Diagnosis and treatment are frequently delayed due to the lack of specific clinical, laboratory and radiological findings.

**Methods:** We describe a case of a 53-year-old gentleman who presented to our institution with acute respiratory distress and clinical findings of a pleural effusion. Uniquely he was discharged a week prior following an admission for a traumatic fall down a flight of stairs that resulted in a Grade-IV splenic injury, requiring an emergency splenectomy. A CT-proven massive haemothorax resulted in haemodynamic instability requiring resuscitation and chest drain insertion in the intensive care unit. On commencement of enteral diet, purulent exudate with evidence of food particulates was seen in his chest drain.

**Results:** Further diagnostic evaluation of drainage contents demonstrated gut flora and a subsequent positive dye test suggested an aero-digestive connection. Repeat CT revealed a fistula between the fundus of the stomach and the left pleural cavity through a ruptured diaphragm. He

underwent an open sleeve gastrectomy and primary repair of the diaphragm.

**Conclusions:** This is the first case in literature reporting a 'gastropleural fistula' presenting in such a fashion. Thorough assessment and decisive action led to a satisfactory outcome. Although rare, a persistent effusion with a history of blunt abdominal and thoracic trauma may herald a GPF, which, if not diagnosed promptly, may result in significant morbidity.

**Keywords:** Gastropleural; fistula; aero-digestive; diaphragmatic rupture; trauma; pleural effusion; empyema

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## Footnote

*Conflicts of Interest:* The authors have no conflicts of interest to declare.

*Ethical Statement:* The authors are accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

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