

Iatrogenic haemothorax – does extra benefit go hand-in-hand with extra risk? A case report and review of literature

Authors: Gopal K Chattopadhyay,^A Pradeep Pardeshi,^A Jagadish Malapanjudi,^A Veronica Varney^A and Rehan Quadery^A

Introduction

Haemothorax is a rare complication of pleural procedures. The national British Thoracic Society (BTS) pleural procedures audit 2015 reports 1% incidence of haemothoraces following pleural aspirations.¹ The BTS guidelines recommend fine-bore needles for procedures wherever possible.² Additional considerations include assessment of bleeding risk, including concomitant use of blood thinners. The national guidelines recommend stopping anticoagulants prior to these procedures, though there is no clear guidance regarding antiplatelet agents.² Studies indicate that dual antiplatelet therapy (DAPT) offers no additional risk of significant haemorrhage after such procedures. Most have considered aspirin and clopidogrel as standard DAPT.³ However, over the years more potent antiplatelet agents have been introduced. To our knowledge, few studies have assessed the bleeding risks with these novel agents in non-cardiac situations.

Case presentation

We report on an 87-year-old male with coronary artery disease on DAPT (aspirin and ticagrelor) who underwent an out-of-hours therapeutic pleurocentesis for a right-sided effusion using a Rocket[®] Chest Aspiration Kit, followed a while later by development of a massive haemothorax. He improved with high-flow oxygen, withdrawal of his DAPT, blood transfusion and a delayed Seldinger chest drain insertion.

Conclusion

The purpose of this report is to alert physicians that novel antiplatelet agents appear to confer an increased bleeding risk, possibly related to their greater therapeutic efficacy. This needs confirmation by clinical trials. In addition, there is a scarcity of objective criteria in British guidelines for performing out-of-hours pleural procedures.² Interestingly in our patient, features of haemothorax became evident only some hours following pleurocentesis. A delayed bleed or an ooze might have occurred. This could imply prolonged observation times following such procedures. ■

Conflicts of interest

None declared.

References

- 1 Hooper CE, Welham SA, Maskell NA *et al*. Pleural procedures and patient safety: a national BTS audit of practice. *Thorax* 2015;70:189–91.
- 2 Havelock T, Teoh R, Laws D, Gleeson F. Pleural procedures and thoracic ultrasound: British Thoracic Society Pleural Disease Guideline 2010. *Thorax* 2010;65(Suppl 2):ii61–76.
- 3 Pathak V, Allender JE, Grant MW. Management of anticoagulant and antiplatelet therapy in patients undergoing interventional pulmonary procedures. *Eur Respir Rev* 2017;26:170020.

Authors: ^AEpsom and St Helier University Hospitals NHS Trust, UK