We read with great interest the article ‘Right massive haemothorax as the presentation of blunt cardiac rupture: the pitfall of coexisting pericardial laceration’ by Chen et al. [1]. This well-presented case highlights a dual emergency and its successful approach. The discussion section, however, includes a number of possible causes that may be responsible for blunt traumatic haemothorax, without mentioning injury of the diaphragm. Traumatic diaphragm injury accounts for almost 3.3% of blunt trauma cases [2].

Three years ago, we faced and reported a rare case of haemothorax due to blunt injury in a patient with hereditary rib exostosis that caused diaphragm penetration [3]. Several other case reports consider not only traumatic diaphragm rupture, but also vascular damage by pressure trauma as an aetiological factor for haemothorax. In addition, there are cases where the disrupted spleen is herniated through the diaphragm in the thorax, causing a haemothorax. Therefore, massive haemothorax should not always focus attention to the chest and intrathoracic causes of haemodynamic instability. If such injuries are not recognized and approached properly, potential for survival is limited.

According to the latest guidelines, ultrasound can reliably be used to identify and measure pleural or pericardial effusion, while computed tomography (CT) of the chest is indicated in patients with persistent opacity on chest radiograph after tube thoracotomy [4]. In our case there was no massive bleeding, and our initial imaging workup consisted of a chest X-ray and an ultrasound scan. Decisive diagnosis, however, was obtained after a chest CT scan, which indicated surgical treatment via an anterolateral mini-thoracotomy. Since patients with traumatic lesions and haemorrhagic pleural effusion usually have multiple bleeding sources, contrast-enhanced CT is generally considered necessary to identify the bleeding points, document their anatomic relationships, detect extravasation of contrast agent, and reveal any additional organ injury. Current studies on massive haemothorax, however, suggest that patient’s physiology should be the primary indication for surgical intervention, and advocate thoracotomy, regardless of the mechanism of injury [4]. On the other hand, in case of haemopericardium, most reports are in favour of sternotomy [5]. This article presents a rare coexistence of massive haemothorax and haemopericardium. Is it correct to proceed with a thoracotomy based on clinical evidence and patient’s physiology without a CT scan? Is median sternotomy a better operative option regarding this dual entity? According to the Authors, the subxiphoid approach shifted to median sternotomy immediately because of catastrophic haemorrhage from pericardial window. Should they have avoided the subxiphoid window and performed a posterolateral thoracotomy right after focus assessment sonography? In order to answer these questions, an algorithm of initial imaging and interventional workup must be established. We look forward to reading further analyses on the subject.

References


