Open chest wound with traumatic pneumothorax

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We present the case of a 60-year-old male with no relevant history that had a motorbike accident in which he went off the road and collided with the parapet. On arrival of the medically equipped ambulance the patient was conscious and oriented (GCS 15) with viable airways. He presented a large open wound on the left side of the thorax with partial loss of the rib cage and display of viscera showing a collapsed left lung and intact pericardium. No other relevant injuries were found on the initial exploration. Vital signs were: blood pressure 80/50 mmHg; heart rate 80 beats per minute; respiratory rate 20 breaths per minute; oxygen saturation 96% (FiO2 0.5); GCS 15.

Due to the size of the wound, a vaseline dressing could not be used to cover the thorax, therefore a plastic wrap obtained from the covering of the Pleurevac® set was applied. Initially, it was fixed at three points and re-expansion of the collapsed lung was achieved (Figure 1). Later, and after applying sedoanalgesia, orotracheal intubation and insertion of trocar for chest drain (20 Ch), the plastic wrap was placed to provide total occlusion (Figure 2).

The patient was transferred with mechanical ventilation (FiO2 1) and he was admitted to the emergency department showing haemodynamic stability and arterial oxygen saturation of 98%. The output from the chest drain was of 140 cc of blood (Figure 3).

In the hospital, the chest wall was reconstructed and the patient was later admitted to the intensive care unit where he evolved favourably. He was discharged from hospital one month later.

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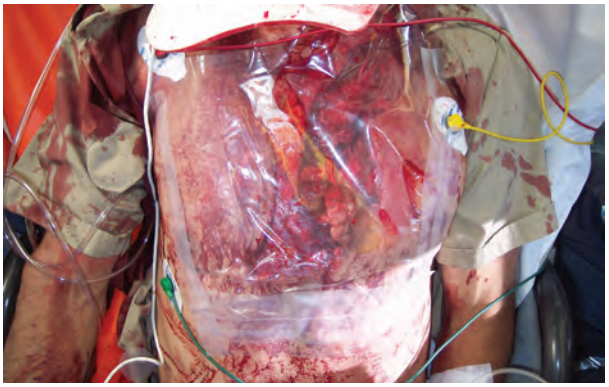

Figure 1. Lung re-expansion after occluding the lesion with a plastic wrap leaving an upper opening.

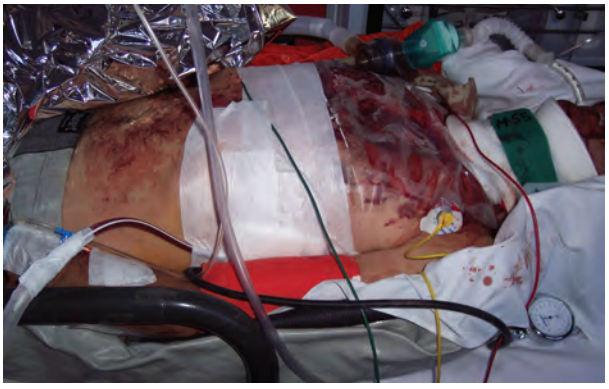

Figure 2. Complete occlusion of the lesion after the insertion of a chest drain.

Figure 3. Haemothorax through drain.