The Chase epicardial stabiliser as an adjunct tool for the management of penetrating cardiac injuries

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BACKGROUND
Penetrating cardiac injuries pose difficult and technical challenges for both trauma surgeons and trauma centres as well as incurring high mortality.1–3

TECHNIQUE
For patients arriving in cardiopulmonary arrest, emergency department thoracotomy is indicated. For those patients arriving stable enough to be transported to the operating room, median sternotomy is the incision of choice. Penetrating injuries to the heart will inevitably cause bleeding of the myocardium, mandating repair to prevent cardiac tamponade. Suture repair of a cardiac laceration is usually carried out with simple interrupted or horizontal mattress sutures but this is quite challenging in beating hearts. At times, rapid manipulation and elevation of the heart during repair results in complex dysrhythmias and even cardiac arrest.4

In selected cases where the cardiac injury is located in areas difficult to repair (eg in the lateral aspects of the ventricles and those adjacent to the left anterior descending coronary artery), the use of a cardiac stabilisation device with adjustable footplates such as the epRetract™ II epicardial retracting stabiliser (Chase Medical, Richardson, TX, US; Fig 1) may stabilise the heart to allow controlled repair of the lacerated myocardium. This device could be attached easily to the sternum retractor and then the footplates may be positioned parallel or at a 90° angle to the cardiac injury. The footplates may be adjusted to approximate the wound edges and stabilise the heart to facilitate repair.

DISCUSSION
We recommend the selective consideration and use of this device as an adjunct for suture repair in cases where minimising cardiac manipulation is advantageous.

References
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A novel technique for repairing anterior labral injuries of the shoulder

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BACKGROUND
We describe a novel technique for arthroscopic repair of a Bankart lesion for anterior dislocation of the shoulder, requiring only one anterior arthroscopic portal.

TECHNIQUE
After anaesthesia, a 30° camera is inserted through a standard posterior shoulder portal. The Bankart lesion is released and mobilised under direct vision through an anterolateral portal using a 6mm cannula. After mobilising the labrum, an anchor is inserted through the anterior portal into the anterior glenoid. A cannulated Tuohy needle (found in most anaesthetic rooms) is used to pass a shuttle suture through the anterior labrum. To mark the correct position a standard 18G needle is first inserted through the anterior capsule anterior to the labrum. Once the desired position has been achieved, the needle is replaced by a longer cannulated Tuohy spinal needle. Under direct vision, the Tuohy needle is advanced through the capsule and labrum and across the face of the glenoid. If required,
Standard Titanium Elastic Nail (TEN; Synthes, Welwyn Garden City, UK) fixation requires a 2.5mm drilled entry point at the base of the metacarpal. This can damage soft tissues including the extensor tendon and also risks breaching the volar cortex. We recommend opening the dorsal metacarpal cortex with a curved artery clip (Fig 1). Initially,

graspers can be inserted through the 6mm cannula to aid manipulation of the labrum or the Tuohy needle. A size 0 Ethilon® suture (Ethicon, Somerville, NJ, US) is advanced through the needle and across the face of the glenoid as a shuttle suture (Fig 1), and the labral repair is undertaken in the normal way.

DISCUSSION
This technique uses readily available equipment and allows access to the inferior labrum as a Tuohy needle is sufficiently slim to pass through the superior part of the subscapularis. Furthermore, it leaves the patient with only one small anterior scar (Fig 2).