Femoral intramedullary biopsy: improving tissue sampling

C Heaver, A Marsh
Russells Hall Hospital, Dudley, UK

CORRESPONDENCE TO
Catriona Heaver, E: catriona.greenfield@doctors.net.uk

BACKGROUND

During an intramedullary nailing procedure for impending or actual pathological fractures, the reamings are commonly saved and sent for confirmation of the diagnosis. However, positive results are not always achieved due to insufficient sampling or thermal damage to the specimen. Hassan *et al* showed that only 60% of cases in which reamings were sent for histology showed positive results.¹ We report on our experience with an alternative technique for obtaining an intramedullary biopsy using Paterson or Lloyd Davis biopsy forceps.

TECHNIQUE

A standard approach for an intramedullary nail is used. The femoral cortex is breached using a guidewire and awl/drill. Prior to reaming of the canal, biopsy forceps are inserted under image intensifier control and tissue samples taken. By using this method, adequate tissue sampling can be achieved.

Figure 1 Biopsy forceps within medullary canal; particular areas of interest can be targeted using an image intensifier to guide into position

DISCUSSION

To date, we have used this technique in four cases, all of which have yielded good amounts of tissue. A positive diagnosis was obtained in three. The fourth case confirmed a carcinoma of unknown origin; however, earlier biopsies taken in the same patient showed the tumour to be too poorly differentiated for a positive result.

This is a very simple procedure that allows the surgeon to evaluate the amount of tissue taken to give pathologists the best chance of obtaining a diagnosis, without thermal necrosis of the sample.

Reference

1. Hassan K, Kalra S, Moran C. Intramedullary reamings for the histological diagnosis of suspected pathological fractures. *Surgeon* 2007; **5**: 202–204.

Risk-free gastrostomy tube exchange

AS Pang
General surgeon in private practice, Singapore

CORRESPONDENCE TO
Ah San Pang, E: pangahsan@gmail.com

BACKGROUND

When a feeding tube is choked, it has to be exchanged. With the nasogastric and percutaneous endoscopic gastrostomy tubes, exchange is not risk free. The former can coil in the oesophagus or trachea and cause aspiration pneumonia. The latter has been associated with track disruption.

Figure 2 Clinical photograph of a loop gastrostomy tube

Figure 1 The steps in tube exchange

tion, haemorrhage, peritonitis and death.^{1,2} A gastrostomy tube that is devoid of these complications is described.

TECHNIQUE

The tube, with an exit opening at its midpoint, is placed in a loop and the ends locked together (Figs 1a and 2). Tube exchange involves belaying the new tube into position (Figs 1b–d and 3).

DISCUSSION

The exchange is atraumatic because the external diameter of the tube is uniform throughout its length. It is impossible for the new tube to be misplaced since it is guided into position by the old tube. This technique is suitable for obese patients with a thick abdominal wall and saves on confirmatory radiology or endoscopy.³ Additionally, the loop and lock make tube dislodgement, usually a common problem, unlikely. The author has used it in five adult patients.

References

1. DiBaise JK, Rentz L, Crowell MD *et al*. Tract disruption and external displacement following gastrostomy tube exchange in adults. *J Parenter Enteral Nutr* 2010; **34**: 426–430.
2. Shahbani DK, Goldberg R. Peritonitis after gastrostomy tube replacement in the emergency department. *J Emerg Med* 2000; **18**: 45–46.
3. Jacobson G, Brokish PA, Wrenn K. Percutaneous feeding tube replacement in the ED – are confirmatory x-rays necessary? *Am J Emerg Med* 2009; **27**: 519–524.

Figure 3 Choked and new tubes belayed, ready for exchange

TECHNICAL TIPS

A simple technique to achieve effective irrigation at the end of an arthroscopy

P Holland, D Machin

Department of Trauma and Orthopaedics, Royal Liverpool and Broadgreen University Hospitals NHS Trust, Liverpool, UK

CORRESPONDENCE TO

Philip Holland, E: ph.holland@gmail.com

When irrigating a joint at the end of an arthroscopy, the loose bodies and resected tissue that the surgeon is trying to remove can get caught in the soft tissues and remain in the joint. A tube to hold apart the soft tissues of the portal used for the outflow of irrigation fluid can be created by cutting the end off a hypodermic needle sheath. Irrigation fluid can then be drained with a high flow through a large channel from a different portal to where it entered the joint, enabling effective irrigation.

Incisions for vascular clamps in minimal access aortic surgery

J Horwood, A Douthwaite, T Da Silva

CORRESPONDENCE TO

James Horwood, E: tipper111@aol.com

Incisions for minimally invasive aortic surgery are frequently compromised by access to iliac vessels and the aneurysm neck for clamping. By placing 2mm incisions over the iliac vessels, as previously described,¹ and one cephalad to the main incision, we can clamp the vessels without needing to lengthen the main incision. In addition, we have found that if the clamp handles are held away from trailing sutures, the fulcrum effect can be utilised to aid intra-abdominal retraction and this allows easier access for the hand to tie down the suture on the proximal anastomosis. Incisions are closed with one skin staple and heal with minimal scarring.

Reference

1. Cerveira JJ, Halpern VJ, Faust G, Cohen JR. Minimal incision abdominal aortic aneurysm repair. *J Vasc Surg* 1999; **30**: 977–984.

Figure 1