BUPIVACAINE INFUSION FOR ILIAC CREST DONOR SITES

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Pain is common after a bone graft has been taken from the iliac crest (Kurz, Garfin and Booth 1989). Local wound infiltration with bupivacaine at closure is effective, but relief lasts for only four hours (Todd and Reed 1991). We report a method of infusing bupivacaine which gives effective and lasting analgesia.

Patients and Methods. Patients requiring iliac crest grafts were randomly selected to receive either bupivacaine infiltration at wound closure or bupivacaine infusion postoperatively.

For the infusion group, a fine-bore catheter was tunnelled into the wound between muscle and fat and used to infuse 0.5% bupivacaine solution at a rate of 5 ml/hour for 48 hours by a syringe driver. A drain was also used; drain and catheter were removed after two days.

For the infiltration group 10 ml of 0.5% bupivacaine solution was injected into the soft tissues by needle and syringe immediately before skin closure. A drain was used.

At 24 hours postoperatively, patients graded their pain on a visual analogue scale (Banos et al 1989; Campbell and Lewis 1990), taking zero as no pain and 10 as worst imaginable pain.

There were nine patients in the infusion group and seven in the infiltration group. The results were analysed by Student’s t-test.

Results. All patients could distinguish iliac crest pain from that of other operation sites. The average pain score in the infusion group was 2.2 while that in the control group was 5.4 (p < 0.01).

Discussion. We have confirmed that infusion is a more effective method of pain relief than single infiltration. The technique is simple, but we recommend that the catheter is placed subcutaneously to reduce intraosseous absorption and the risk of toxicity (Gilman et al 1990).

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REFERENCES


