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## Perceptions of pain relief after surgery

SIR,—The study by Ms Sandra Kuhn and colleagues highlighted the misconceptions surrounding pain relief among some practising hospital staff and patients.<sup>1</sup> Although the visual analogue scale used by the authors can yield some information about pain experienced, it is difficult to draw conclusions from an analysis based on incomplete records, particularly in association with lack of uniformity and variation among patients, in number of doses, and in frequency of administration (as admitted by the authors).

One of the most important reasons why postoperative pain relief was shown in the article to be inadequate is the choice of analgesic. The widely used narcotics, either by an intermittent intramuscular route (as used by the authors) or by continuous or patient controlled intravenous infusion, carry the risk of respiratory depression, particularly in patients with compromised respiratory reserve.<sup>2,4</sup> In addition, they provide unsatisfactory pain control<sup>1,5</sup> and tend to worsen hypoxaemia, which is most profound and persistent after upper abdominal procedures such as cholecystectomy.<sup>2</sup>

Although earlier studies claimed that infusion of intravenous opiates can reduce pain effectively,<sup>6,7</sup> thus decreasing the incidence of postoperative pulmonary complications,<sup>7</sup> recent reports suggest that continuous infusion of narcotics neither improves respiratory function nor reduces the incidence of postoperative pulmonary complications,<sup>8</sup> which are encountered by 20-80% of patients undergoing upper abdominal surgery.<sup>9-13</sup>

The undesirable effects of opiates on respiration, interference with alertness of patients and the resultant poor cough compliance, and nausea and vomiting occur commonly and can have serious consequences, particularly in patients with compromised respiratory function. Fear of precipitating respiratory depression can lead to opiate analgesia being withheld and result in irregular administration, widely fluctuating plasma drug concentrations, and inadequate pain relief.<sup>8</sup> These problems can be overcome with local anaesthetics that are safer, reliable, and far more effective in controlling postoperative pain.

We have developed a greatly simplified technique of continuous intercostal nerve block using bupivacaine instituted by the surgeon at operation. So far 93% of our patients have had adequate pain relief in the first four days after operation—the period when the system is in use—and required no additional analgesia. We encountered no pulmonary complications or adverse reactions to the procedure or to the bupivacaine pump infusion. Our method has not only eliminated the wide variation in the level of analgesia commonly seen with intermittent administration of opiates (as

experienced by the authors themselves); it has also obviated the need for experienced staff to be on standby for regular "topping up," as required with continuous epidural analgesia. We find this method of pain control highly successful in reducing postoperative pain without interfering with patients' levels of alertness and ability to cough and comply with intensive physiotherapy.

H HASHIMI  
A L STEWART

Bradford Royal Infirmary,  
Bradford BD9 6RJ

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SIR,—Ms Sandra Kuhn and colleagues describe using linear analogue scales to assess postoperative pain and relate it to their patients' expectations.<sup>1</sup> I agree with their conclusion that the level of pain relief provided is often inadequate and that it remains "an indictment of modern medicine that an apparently simple problem such as the reliable relief of postoperative pain remains largely unsolved."<sup>2</sup> I think, however, that some of their conclusions are unjustified.

The authors concentrated on the irrational fear of opiate dependence as the apparent reason for restricting the dose of analgesia. They seem to ignore the other disadvantages associated with the conventional use of a fairly fixed dose of opioid on an as required basis. The requirement for such analgesia varies with the extent of surgery and as a

result of pharmacokinetic and dynamic variations among patients, though the administration of adequate doses may be inhibited by the real risk of nausea and vomiting or respiratory depression. Although it is cheap and has the advantage of being familiar practice, to leave the judgment of a patient's drug response to the nurses on a busy ward is, I believe, the real reason for the inadequacy of analgesia. This is unlikely to be improved unless alternative drugs<sup>3,4</sup> and methods of administration are used.

The study also concludes that patients do not expect the degree of pain they experience postoperatively. Over the past year I have been using a linear analogue scale to assess whether patients undergoing elective cholecystectomy thought their postoperative period to be worse or better than expected; the end points of the ungraduated 10 cm scale were much better (0 cm) and much worse (10 cm). Eighty two patients (24 men and 58 women) with an average age of 52.6 (SD 15.2) years have completed scales, and 61 thought that the postoperative period had been better than they expected, with an average score of only 2.8 cm.

I accept that this question addresses a wider topic than the pain and nausea assessed by Ms Kuhn and colleagues, but these are probably the main factors taken into account by our patients, who seemed to expect the worst and to be pleasantly surprised. Though I agree that there is a place for providing patients with information on how to relieve postoperative pain,<sup>5</sup> to warn such patients preoperatively that the pain will be worse than they expect would seem to add unnecessarily to their inevitable anxiety.

G ROBERTSON

George Eliot Hospital,  
Nuneaton CV10 7DJ

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SIR,—In their recent paper Ms Sandra Kuhn and colleagues make some telling points, many of which confirm existing knowledge.<sup>1</sup> The impact of their message, however, is diminished somewhat by inadequacies in their methods and data.

The "number of anaesthetic drugs"<sup>2</sup> is not sufficiently specific information: the term may