So far the only justification for the laparoscopic method is a possible marginal lessening of post-operative discomfort, but is this so important when one considers the complexity and risks of the procedure compared with those of the mesh technique?

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Sedation in fibreoptic bronchoscopy

Further study is needed

EDITOR,—We agree with M Q F Hatton and colleagues that it is unnecessary to sedate a patient for a procedure for which local anaesthesia may be used satisfactorily.¹ Sedation is safe provided that the administrator has had specific training and that guidelines for the selection of patients, monitoring, resuscitation facilities, and use of supplemental oxygen are followed. The drugs and techniques used should carry a wide margin of safety.² Hatton and colleagues state that sedation for bronchoscopy is associated with major complications.^{3,4} We note that many of these complications were attributed to inadequate resuscitation equipment, the failure to give supplemental oxygen, or the use of opiates with benzodiazepines (a synergistic combination with a narrow safety margin).² Patients' comfort and their tolerance of bronchoscopy may be influenced by several factors, including the depth and quality of sedation and the effectiveness of airway anaesthesia.

Active agent or placebo was used to produce light sedation. Did the authors use a recognised objective assessment of sedation—for example, the Ramsay score⁵—to titrate the level of sedation? The failure of doctors to identify whether active treatment had been given (18% for phenoperidine and 47% for midazolam) suggests that many patients were not sedated. It is not surprising that subtherapeutic doses failed to make the procedure more tolerable.

We note that patients who received phenoperidine said that they would be disinclined to repeat the procedure. We agree that the high incidence of nausea, vomiting, and dysphoria and the lack of hypnosis associated with synthetic opiates might produce poor quality sedation and contribute to this disinclination. Did the authors record the amount of topical local anaesthetic given, and was a similar quantity used for all groups?

We suggest that a further study with an objective assessment of sedation and control of compounding variables, such as the amount of local anaesthesia, is required to answer whether sedation helps in fibreoptic bronchoscopy.

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Doses that produce amnesia should be given

EDITOR,—I have considerable reservations about M Q F Hatton and colleagues' conclusion that routine sedation has little part to play in patients undergoing a single diagnostic bronchoscopy.¹ The description of the patients' willingness to undergo a repeat procedure, as indicated on a visual analogue scale, makes it difficult to compare their results with others but presumably means that a substantial number of patients would not be happy to have the test repeated. I have been impressed by the number of patients who, when discussing a bronchoscopy, have said something to the effect of "I do not mind what you do to me as long as you put me to sleep." Certainly, previous studies have shown that up to a quarter of patients would not be prepared to have a repeat bronchoscopy.^{2,3}

My colleagues and I have recently published our results of using higher doses of midazolam (mean 0.24 mg/kg).⁴ This dose produces complete amnesia, and only one of 123 patients was not prepared to have the procedure repeated. Although there are concerns about complications associated with sedation, we have been using this technique for several years without serious problems. This is probably because we give the midazolam in small incremental doses over several minutes. If any problems arise the sedation can be rapidly reversed with intravenous flumazenil. Surely, if many un-sedated patients find the procedure so unpleasant that they are not prepared to have it repeated then sedation in doses that produce amnesia should be used.

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Intravenous sedation is inappropriate in most minor procedures

EDITOR,—M Q F Hatton and colleagues' suggestion that intravenous sedation has little part to play in fibreoptic bronchoscopy has far reaching implications in all the surgical specialties.¹ I believe that intravenous sedation has little if any role in most minor procedures.

Many such procedures are carried out under sedation by junior medical staff, who often draw on their experience in casualty departments. The aim of using sedation under these circumstances is to make the procedure more comfortable for the patient. I have often, however, seen escalating doses of hypnotics being given without effect when analgesia would have been more appropriate. What makes such procedures unpleasant is not awareness but pain. There is a widespread, fundamental failure to distinguish between analgesia and sedation.

I believe that the root of this evil rests in casualty departments, where many doctors start their surgical training. There, many procedures—for example, manipulation of Colles' fractures—are

routinely carried out under intravenous sedation. Many casualty departments have policies forbidding senior house officers to use intravenous regional anaesthesia (Bier blocks) because of potential complications. Instead they encourage the use of intravenous sedation. I have never found sedation to be of any value in facilitating the manipulation of such fractures unless doses sufficient to induce general anaesthesia are used. This is because the patient wakes up as soon as pain is elicited by movement at the fracture site. All too often doctors accept patients' short lived pain and distress, hiding behind the theoretical side effect of amnesia. Even more surprising is that they are encouraged to do so by the nursing staff.

The relief of pain and suffering is the basis of our work. Surgical trainees and, indeed, all doctors and nurses should be encouraged to learn effective methods of analgesia through their reading, consultation with anaesthetic staff, and supervision by senior colleagues. Let us eradicate this barbaric practice of inappropriate intravenous sedation and banish midazolam from the cabinet.

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Patients must be monitored

EDITOR,—M Q F Hatton and colleagues suggest that the routine use of intravenous sedation has little part to play when patients undergo a single diagnostic procedure.¹ We agree that the blanket administration of intravenous sedatives to all patients undergoing endoscopic procedures is inappropriate, but we believe that these drugs have a useful role in helping a small number of patients to accept an often distressing procedure. In this context it is important to emphasise monitoring and the correct dose of drugs to ensure the safety of patients. In view of guidelines on sedation by non-anaesthetists issued by a working party of the Royal College of Surgeons we are concerned that the authors fail to mention if, or how, patients were monitored during the procedure.²

In simple sedation, reassurance and hypnotic suggestion, together with the use of drugs, produce a state of depression of the central nervous system during which communication is maintained so that patients respond to instruction. If this is lost then the patient has, for all intents and purposes, received a general anaesthetic with all its attendant risks. The authors do not define the term "light sedation." We find this misleading, as by implication a state of deep sedation must exist. What features delineate clearly the transition between the two? Does not deep sedation simply constitute a state of general anaesthesia as defined above? Although we are told that the dose of drug was titrated to achieve light sedation, most patients received the same total dose. In view of the varying susceptibility of patients to intravenous sedatives, it would be surprising if all patients achieved the same degree of light sedation.

Increasing numbers of patients are undergoing endoscopic procedures as day cases and as a result are exposed to the hazards of intravenous sedation. We applaud the authors for questioning and discouraging the routine use of intravenous sedatives in such procedures but would emphasise that, when they are used, the guidelines suggested by the Royal College of Surgeons should be followed.

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