Should the BSE collaborate with the BSG on intravenous sedation?

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If we consider gastro-oesopageal endoscopy as a similar procedure to transoesophageal echocardiography (TEE) then we might be alarmed at the 30-day mortality of 1:2,000 reported by Quine *et al*.[1] I am not a practitioner of either of those arts, but I am putting on my anaesthetist cap to respond to the article by Mankia *et al*. discussing intravenous opiate/benzodiazepine sedation in this issue of the journal (see pages 125-7). The endoscopy death rate is especially concerning if you compare the fact that anaesthesia was considered to have been totally responsible for death in less than 1:10,000 operations in the UK.[2] Mankia *et al.* quite rightly suggest that there should be guidelines concerning the safe use of intravenous sedation in TEE, and should be congratulated for highlighting this matter. I would suggest that their gastrointestinal endoscopy colleagues have a lot of experience on which to draw from.

Gastroenterology guidelines

The British Society of Gastroenterology (BSG) guidelines suggest that the opiate is used before the benzodiazepine.[3] The BSG guidelines also suggest a maximum dose of 5 mg midazolam and 50 mg pethidine. Mankia *et al.* seem to permit 10 mg midazolam and 75 mg pethidine in their proposed protocol. Such doses would seem excessive unless you have confidence in your ability to provide assisted ventilation. In the survey nobody appears to have used more than 50 mg pethidine and, therefore, practitioners appear to set their own sensible cut-off points. In gastroscopy, sedation is often avoided, however, the TEE is of a much larger diameter and, therefore, presumably, causes more discomfort and this needs to be taken into account.

The slow incremental use of midazolam should be stressed as important, using bolus injections of only 2 mg, and half that in those over 75 years, with a minimum three minute interval between subsequent bolus injections. Local anaesthetic throat sprays are commonly used in TEE, however, they should ideally not be used in the sedated patient as the loss of the gag reflex increases the dangers. The use of intravenous fluids to resuscitate six patients and the need to use flumazenil in two patients is concerning as it indicates a relatively high number of problems occurring in only 151 cases.

Importance of monitoring

Any guideline should stress the importance of deciding who is monitoring the patient. If the operator is concentrating on the echocardiogram then they must be assumed to be distracted and, therefore, another person, who is fully trained in resuscitation, needs to be watching the patient and the saturated oxygen levels. The BSG guidelines suggest a minimum of two assistants during gastrointestinal endoscopy. Trainees should be supervised by senior staff and be considered as additional to the minimum number of staff present.

Careful pre-assessment and patient selection has contributed to improved patient safety in anaesthesia and should also be adopted in sedation procedures.[4] It does not mean you refuse the patient the procedure required, more that those who have early warning of problems are also prepared to tackle any impending crisis.

Three centres routinely had an anaesthetist present, which was three more than I expected. What is important for the other centres is that the on-call anaesthetists know where the unit is situated and where the resuscitation equipment is sited.

It is important that the British Society of Echocardiography (BSE) produce UK-specific guidelines or recommend a pre-existing protocol as soon as possible.

Conflict of interest

None declared.

Editors' note

The article by Mankia *et al*. on safe combined intravenous opiate/benzodiazepine sedation for transoesophageal echocardiography can be found on pages 125-7.

References

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