



**Figure 2** The Seeing Optical Stylet™.

Finally, it is easy to clean, and the ‘turn around time’ before it can be used again may be quicker. The possible disadvantages of using the Seeing Optical Stylet rather than a bronchoscope are that it does not have a suction port, and secretions and blood cannot be directly aspirated. It may also take slightly longer to obtain an optimal view of the procedure, as the malleable sheath may need manual adjustments for which it has to be withdrawn from the tracheal tube. Lastly, it is clearly not possible to proceed to a bronchoscopy if that is indicated.

The Seeing Optical Stylet is unlikely to replace the bronchoscope in percutaneous tracheostomies. However, it may be used as an alternative, and have wider applications in the intensive care setting.

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### Difficulty with flanged tracheostomy tubes

Failure to deflate the cuff due to kinking of the pilot tube with the flange at its take-off from the tracheostomy tube reported by Barker and Prasad [1] is similar to the well-known kinking of the pilot tube at the take-off point with a tie around tracheal tubes [2, 3]. Invariably all the problems related to the pilot tube that can lead to the inability to deflate the cuff occur due to kinking or obstruction at the take-off point. In spite of the instructions on the product information produced by manufacturing companies, such incidents will continue to happen, as the instructions for use are rarely read. What is needed is some mechanism by which the possibility of obstruction is eliminated altogether, such as placing a stop distal to the take-off point so that the flange can be prevented from rotation or coming close to this point and leading to kinking.

If the pilot tube is obstructed due to any cause and the cuff can not be deflated, the intramural inflating channel in the wall of the tracheal tube can be opened to the atmosphere by placing a full depth cut on the wall across the channel distal to the take-off point of the pilot tube [4]. This allows the air in the cuff to escape, preventing the risk of trauma if the tube is removed with the cuff inflated. Cutting open the intramural channel is a safer option than

other methods of deflating the cuff such as puncturing it directly or percutaneously with a needle.

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### Dexmedetomidine for peri-operative sedation and analgesia in alcohol addiction

I report on the use of dexmedetomidine for peri-operative analgesia and sedation prophylaxis of alcohol withdrawal syndrome in two alcoholic patients.

A 60-year-old man presented for laparoscopic nephrectomy. His medical history included hypertension, anxiety neurosis, emphysema, smoking and alcoholism. He was anxious, with a heart rate of 107 beats.min<sup>-1</sup> and blood pressure of 159/97 mmHg. Intravenous dexmedetomidine infusion was commenced with a loading dose of 1 µg.kg<sup>-1</sup> over 15 min, followed by a continuous infusion of 0.5–0.7 µg.kg<sup>-1</sup>.h<sup>-1</sup>. He was adequately sedated, and maintained verbal communication. Anaesthesia was induced with fentanyl 100 µg and propofol 200 mg, and maintained using isoflurane and dexmedetomidine infusion, with vecuronium for muscle paralysis. At completion of surgery, the isoflurane was stopped and residual neuromuscular blockade reversed. With the patient obeying commands and breathing adequately, the dexmedetomidine was discontinued and he was extubated. The intra-operative course and emergence were smooth. Postoperatively, he

remained sedated and comfortable, with a pain score of 0/10 in the first hour and 3/10 in the second hour before discharge from the recovery unit. No opioid analgesic was administered after induction.

A 29-year-old man presented for laparoscopic inguinal herniorrhaphy. His medical history included depression, panic attacks and alcoholism. His heart rate was 99 beats.min<sup>-1</sup> and blood pressure was 140/90 mmHg. Intravenous dexmedetomidine infusion was commenced using the same regimen as in the first case. He was adequately sedated, but easily rousable. Anaesthesia was induced with propofol 200 mg, and maintained using isoflurane and dexmedetomidine infusion, with atracurium for muscle paralysis. On completion of surgery, the isoflurane was stopped and residual neuromuscular blockade was reversed. With adequate respiration and response, the dexmedetomidine was stopped and the patient extubated. The intra-operative course and emergence were smooth. Postoperatively, he remained calm and comfortable, with a pain score of 0/10 in the first hour and 4/10 in the second hour before discharge from the recovery unit. Again, no opioid analgesic was administered peri-operatively.

The peri-operative risks of alcohol addiction and intoxication may be significant [1]. Anxiety and pain can precipitate alcohol ideation, withdrawal syndrome and addiction relapse [2–4]. Adequate premedication and analgesia is paramount. However, administration of sedatives and analgesics must be judicious to minimise the risk of abnormal pharmacodynamics, cross-addiction and addiction relapse [5]. Anxiolytics administered peri-operatively include benzodiazepines and opioids. However, there are anecdotal reports of alcohol craving following administration of these medications to rehabilitated alcoholics [2, 3]. This may be a cross-addiction, and some patients are afraid of the abuse potential of premedication [5]. Opioid antagonists such as naltrexone reduce alcohol ideation, but also increase analgesia requirement [6]. Anticonvulsants can

minimise alcohol-mediated neuronal hyperexcitability, but they reduce the efficacy of non-depolarising neuromuscular blockers.

Alpha-2 adrenoceptor agonists have sedative, amnesic and analgesic properties. They are not addictive and do not play any role in cross-addiction. Clonidine is the prototypical alpha-2 agonist and has been investigated for the prophylaxis of peri-operative alcohol withdrawal syndrome [7]. Dexmedetomidine is a newer alpha-2 agonist with a short half-life of 2.3 h and 10 times the potency of clonidine. The high potency of dexmedetomidine implies that it is a full agonist at alpha-2 adrenoceptors, and can be administered at relatively high doses for sedation and analgesia without cardiovascular and respiratory depression. Dexmedetomidine provided adequate pre-operative and postoperative sedation for the two alcohol-dependent patients described. Both patients were calm and pleased. The drug also provided good intra-operative analgesia. The patients did not require intra-operative opioids, and were comfortable postoperatively. Although dexmedetomidine is only licensed for ICU sedation, it is used peri-operatively for its analgesic effect [8]. In conclusion, dexmedetomidine provides good peri-operative sedation and analgesia in alcoholics, and offers a better approach than the use of benzodiazepines, opioids or anticonvulsants.

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#### Acute venous thrombosis caused by lipid-free propofol

Recently, lipid-free propofol with thiomersal as a preservative (Cleofol 1%®, Themis Pharmaceuticals, Mumbai, India) has become available in India. Venous thrombosis of the upper limb was caused by this agent in a patient requiring radiofrequency lesioning for trigeminal neuralgia.

A 55-year-old, well-controlled (metoprolol) hypertensive woman was administered lipid-free propofol (Cleofol) 1.5 mg.kg<sup>-1</sup> through a 20 G intravenous cannula positioned in the left forearm. The patient complained of severe pain in the forearm and arm at the time of injection, which subsided after flushing the cannula with normal saline. Two subsequent injections of propofol during lesioning also caused severe pain. Following the fourth bolus of propofol injected during lesioning, the patient woke up with excruciating pain in the limb. The superficial veins of the left forearm became prominent,