Use of dexmedetomidine for medical thoracoscopy: Evaluation of its safety and effectiveness

Bairaktari A., Katsipoulakis A., Androutsou E., Lebesi L., Agoritsa V., Anastasiou N.*

Department of Anesthesiology

*Department of thorasic surgery

General Oncological Hospital « Agioi Anargyroi», Athens, Greece.

Background and goal of study.

Medical thoracoscopy is commonly performed under conscious sedation with IV midazolan and fentanyl or under monitored anaesthesia care (MAC) with IV propofol and fentanyl. The aim of the present study was to evaluate the safety and efficacy of dexmedetomidine (Dex) and the need to use ketamine for rescue sedation and analgesia in patients undergroing medical thoracoscopy.

Methods:

After regional ethical approval, hirty two patients (age 59-85 yo), ASA I-III, scheduled for medical thoracoscopy, during a two years period, were included. The application of medical thoracoscopy was for diagnosing pleural effusion, for performing pleurodesis and for biopsy of parietal pleura. The patients were in the lateral position and Dex was used for MAC. The initial loading dose of 1 µg/kg of Dex was administered over 10min followed by a maintenance infusion beginning at a rate of 0,6µg/kg/h. Fifteen minutes after starting Dex, patients were assessed for level of sedation using the Observer’s Assessment of Alertness/Sedation Scale (OAA/S). Any patient having a score>4, received IV ketamine 1mg/kg. Ketamine 1mg/kg was also given if the anaesthetist determined the presence of pain or the patient was moving. At any time, if clinically indicated, the patient could be converted to an alternative anesthetic therapy. OAA/S scores and all standard vital signs were obtained.

Results:

Mean operation time was 24min (15-70 min). Dex was discontinued in one patient and IV propofol 150mg and fentanyl 100µg were given. Ketamine was used for rescue sedation and analgesia in all patients. Common adverse events with Dex were protocol- defined bradycardia and hypotension that were mild in severity. Clinically significant respiratory depression (RR <8 or SPO2 of <90%) wasn’t observed in any patient.

Conclusions:

Dex in combination with ketamine is an effective and safe sedative for patients undergroing monitored anaesthesia care for medical thoracoscopy.

Table 1. The Observer Assessment of Alertness/Sedation (OAA/S) Scale	
Content	Score
Responds readily to name spoken in normal tone	5
Responds lethargically to name spoken in normal tone	4
Responds only after name is called loudly, repeatedly, or both	3
Responds only after mild prodding or shaking	2
Responds only after painful trapezius squeeze	1
Does not respond to painful trapezius squeeze	0

Reference:

Monitored anesthesia care with dexmedetomidine: A prospective, Randomized, Double – Blind, Multicenter Trial. Candiotti KA et al Anesth Analg 2010; 110: 47-56