



# Dexmedetomidine versus Propofol Along with Scalp Block for Chronic Subdural Haematoma Evacuation Under Monitored Anaesthesia Care: Which is Better?

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Dear Editor,

Monitored anaesthesia care (MAC) has many advantages and has been the first choice for 10%-30% of surgical and interventional procedures (1). Chronic subdural haematoma evacuation is one such neurological procedure wherein MAC is well practiced. In this regard, I read the article by Srivastava et al. (2) comparing Dexmedetomidine and Propofol along with scalp block. The authors concluded that Dexmedetomidine-based MAC is better than Propofol-based MAC and should be a first-line anaesthetic technique. I think we should consider a few facts in this context:

Firstly, although the authors have shown that the patients in the Dexmedetomidine group had stable and lower haemodynamics than those in the Propofol group, the fact that 6.45% of patients have >30% blood pressure fall and 3.22% of patients have bradycardia in the Dexmedetomidine group as opposed to none in the Propofol group negates the credit of haemodynamic stability for Dexmedetomidine.

Secondly, although the authors have used target bispectral index (BIS), it does not indicate that the patients were comparable on the basis of sedation level. This is because general anaesthesia is a continuum of depth of sedation, and deeper levels of sedation have increased possibility of affecting the haemodynamics (3). Therefore, comparison of BIS values across different time points among the groups would provide better information. The same is also pertinent for preoperative Glasgow Coma Scale (GCS) scores of patients. Although the authors have included patients with GCS score >12; a patient with a GCS score of 13 and another patient with a GCS score of 15 should not be considered on similar levels, especially when we are dealing with sedation and satisfaction assessment.

Thirdly, premedication plays an important role in sedating patients in anaesthetic practice. It should have been standardized by the authors, or if it was standardized, it would have been worth mentioning what drug was used as premedication or no premeds were used in the context. Similarly, a sedation scale to assess and compare the baseline sedation level would also have contributed.

Fourthly, because drug blinding was not possible, the surgeon was aware about the group allocation and study drugs. This can be a major bias for surgeons' satisfaction assessment. Moreover the difference in the satisfaction among the groups was also not very high (even though significant). A single patient with bad satisfaction score in the Dexmedetomidine group or good satisfaction score in the Propofol group will lead to a major change in the interpretation because of the low sample size. The authors mention that the Dexmedetomidine group required fewer sedatives.

However, they failed to mention the need for extra doses of sedation (boluses) in each group along with a comparison.

Lastly, patients' satisfaction is an important parameter in quality health practice and is even regarded as one of the objectives of MAC. The study failed to find any difference in this parameter. Although one patient in the Propofol group required airway management to continue the surgery, it does not necessarily indicate that Propofol is a bad sedative, especially with respect to MAC. This is because of the feature of MAC and moderate sedation, wherein MAC has the flexibility of matching sedation levels to patient needs and procedural requirements and the ability to adjust the sedation level from full consciousness to general anaesthesia during the course of a procedure and achieve safe administration of the maximum depth of sedation (4).

Therefore, I think the authors' conclusion that 'Dexmedetomidine-based MAC is a better technique than Propofol-based MAC' is not well supported by their study. While the authors have done a commendable job a future, randomized, blinded study will be required to provide us better information.

## References

1. Ghisi D, Fanelli A, Tosi M, Nuzzi M, Fanelli G. Monitored anesthesia care. *Minerva Anesthesiol* 2005; 71: 533-8.
2. Srivastava VK, Agrawal S, Kumar S, Khan S, Sharma S, Kumar R. Comparative Evaluation of Dexmedetomidine and Propofol Along With Scalp Block on Haemodynamic and Post-operative Recovery for Chronic Subdural Haematoma Evacuation Under Monitored Anaesthesia Care. *Turk J Anaesthesiol Reanim* 2018; 46: 51-6. **[CrossRef]**
3. American Society of Anesthesiologists. Continuum of depth of sedation: definition of general anesthesia and levels of sedation/analgesia. Committee of Origin: Quality Management and Departmental Administration. (Approved by the ASA House of Delegates) 2009 Oct 13 [last amended 2014 Oct 15] [cited 2018 Jun 2].pp1-2. Available from: <http://www.asahq.org/~media/Sites/ASAHQ/Files/Public/Resources/standards-guidelines/continuum-of-depth-of-sedation-definition-of-general-anesthesia-and-levels-of-sedation-analgesia.pdf>
4. American Society of Anesthesiologists. Distinguishing monitored anesthesia care ("mac") from moderate sedation/analgesia (conscious sedation). Committee of Origin: Economics (Approved by the ASA House of Delegates) 2004 Oct 27 [last reaffirmed 2013 Oct 16] [cited 2018 Jun 2].pp1-2. Available from: <http://www.asahq.org/~media/Sites/ASAHQ/Files/Public/Resources/standards-guidelines/distinguishing-monitored-anesthesia-care-from-moderate-sedation-analgesia.pdf>