PARALLEL SESSION 2:
RA & UPPER LIMB BLOCKS
TIME: 13:00 - 15:15

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Role of Remimazolam in Regional Anesthesia

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Abstract:

Utilizing remimazolam for optimal sedation in patients undergoing surgery under regional anesthesia

The use of sedation in patients who are undergoing surgery under regional anesthesia is essential to attenuate their anxiety and prevent patient movement from interfering with the operation. Considering the disadvantages of existing sedative drugs, the ideal sedative should possess the characteristics of rapid onset, short duration, quick and predictable recovery with rapid return of cognition, and a good safety profile.

Propofol and dexmedetomidine have been widely used for intraoperative sedation under regional anesthesia. Propofol offers advantages such as rapid onset, offset, and ease of titration. However, despite the short duration of action of Propofol, its recovery time is unpredictable and uncontrollable, particularly with prolonged infusion. Moreover, it requires caution because of the potential for respiratory depression, injection pain, hypotension, and fatigue. As an alternative, dexmedetomidine, which is relatively effective in minimizing respiratory depression, has been introduced. However, it is associated with a slow onset, prolonged duration, and a higher rate of sedation failure.

Remimazolam, which is a novel ultra-short-acting benzodiazepine that is structurally similar to midazolam, exhibits rapid onset and recovery with minimal hemodynamic and respiratory effects. Although remimazolam is a benzodiazepine like midazolam, it is rapidly hydrolyzed into an inactive metabolite by tissue esterases. Therefore, remimazolam is appropriate for continuous infusion as a sedative during surgical procedures. Recently, several studies have been published on various recovery profiles, including emergence time and quality of recovery, following general anesthesia with remimazolam. However, there is scarce research on intraoperative sedation using remimazolam. In addition, remimazolam causes minimal respiratory depression compared with midazolam and propofol. Nevertheless, information regarding the appropriate dose for sedation during surgery is limited.

So, I would like to talk about remimazolam for optimal sedation in patients undergoing surgery under regional anesthesia.