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REVIEWER'S REPORT

Manuscript No.: **IJAR-52884** Date: 21-07-2025

Title: A COMPARATIVE STUDY OF BIER' S BLOCK USING LIGNOCAINE & LIGNOCAINE WITH DEXMEDETOMIDINE

Recommendation:
Accept as it is .....
Accept after minor revision.....
Accept after major revision .....
Do not accept (*Reasons below*) .....

Rating	Excel.	Good	Fair	Poor
Originality		✓		
Techn. Quality		✓		
Clarity			✓	
Significance			✓	

Reviewer Name: Dr Aamina

Reviewer's Comment for Publication.

General Overview:
This manuscript presents a well-structured and clinically relevant comparative study evaluating the effects of adding dexmedetomidine to lignocaine in Bier's block for upper limb surgeries. The study focuses on critical parameters including block onset times, postoperative analgesia, sedation levels, and rescue analgesic requirements. The design, execution, and statistical analysis are methodically presented and contribute meaningful insights to the field of regional anesthesia.

Title and Abstract:
The title accurately reflects the scope and core content of the study. The abstract provides a concise yet comprehensive summary of the background, objectives, methodology, key results, and conclusion. Important outcomes are clearly stated with statistical relevance, highlighting the clinical value of dexmedetomidine as an adjuvant.

Study Design and Methodology:
The study follows a prospective, randomized, single-blinded design involving 60 patients undergoing short-duration upper limb surgeries. The patient inclusion criteria (ASA I & II, aged 18–65) are clearly defined. The intervention groups—lignocaine alone and lignocaine with dexmedetomidine—are appropriately constructed, and dosage details are explicitly provided. Evaluation parameters such as sensory/motor block onset, VAS scores, sedation levels, and rescue analgesia are well-selected and clinically pertinent. The use of SPSS v23 for statistical analysis reinforces the methodological rigor.

Results and Interpretation:
The results are clearly presented and statistically validated. Group LD showed significantly faster onset of sensory and motor block, longer analgesic duration, and lower VAS scores compared to Group L. Notably, the extension of time until rescue analgesia and higher sedation scores in Group LD reflect the

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enhanced efficacy of the combination. All data are supported by precise mean values and standard deviations, demonstrating consistency in outcome measurements.

Discussion and Clinical Implication:
The study reinforces the role of dexmedetomidine in improving the quality and duration of anesthesia during IVRA. It validates dexmedetomidine's utility in enhancing both intraoperative and postoperative outcomes without notable adverse effects, aligning well with existing literature and theoretical expectations surrounding α-2 agonists.

Language and Structure:
The manuscript is written in clear, precise, and professional language. Medical terminology is used appropriately, and the structure of the manuscript—from abstract to conclusion—follows a logical and coherent progression.

Conclusion:
The study successfully demonstrates that dexmedetomidine, when used as an adjuvant to lignocaine in Bier's block, offers significant clinical advantages in upper limb surgeries. The findings contribute valuable evidence to the body of knowledge in anesthetic practice, particularly in optimizing IVRA for short-duration procedures.