Qeios

Peer Review

Review of: "Pain assessment and management for older patients with hip fractures"

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Manuscript Title: Pain Assessment and Management for Older Patients with Hip Fractures **Reviewer Recommendation:** Major Revision

I. General Evaluation and Significance

This manuscript addresses a critical clinical challenge in geriatric orthopedics: the optimization of analgesia for hip fractures. Given the established correlation between suboptimal pain control and adverse outcomes—such as delirium, prolonged hospitalization, and increased mortality—the topic is highly pertinent. While the clinical orientation and the inclusion of regional anesthesia techniques are commendable, the manuscript currently functions more as a descriptive summary than a critical synthesis. Significant methodological and analytical refinements are required to meet the rigorous standards of high-impact clinical literature.

II. Critical Deficiencies and Methodological Concerns

1. Methodological Transparency (Critical) The primary limitation is the lack of a defined search methodology. Even within a narrative review framework, transparency regarding evidence acquisition is essential.

Requirement: The authors must delineate the search strategy, including databases (e.g., MEDLINE, Embase, Cochrane), specific MeSH terms, and temporal boundaries. Inclusion/exclusion criteria should be explicitly stated to mitigate selection bias.

2. Depth of Geriatric Pharmacotherapy and Pathophysiology The review currently provides a generic overview of analgesia that lacks geriatric-specific nuance.

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Requirement: A deeper analysis of the **pharmacokinetics and pharmacodynamics** of analgesics in the frail elderly is necessary. Specifically, the discussion must integrate the **"Pain-Delirium-Dementia" triad**, addressing how specific modalities (e.g., opioid-sparing techniques) modulate neuroinflammatory responses and postoperative cognitive dysfunction (POCD).

3. Comparative Synthesis of Regional Anesthesia While the inclusion of Fascia Iliaca Block (FICB) and Femoral Nerve Block (FNB) is appropriate, the text is overly descriptive.

Requirement: The authors should provide a comparative analysis of these techniques, focusing on **motor-sparing effects, efficacy in dynamic vs. static pain, and impact on early mobilization**. The emergence of newer techniques, such as the **PENG block**, should be briefly addressed in the context of recent literature (2021–2026).

4. Integration of Functional Outcomes Pain management should not be discussed in isolation but rather as a component of a **comprehensive geriatric assessment (CGA)**.

Requirement: The manuscript must synthesize how pain control correlates with long-term functional recovery, 30-day mortality, and the successful implementation of "orthogeriatric" co-management models.

III. Structural and Technical Recommendations

Evidence Grading: It is strongly recommended to use a recognized framework (e.g., GRADE) to weigh the strength of clinical recommendations.

Algorithmic Approach: The addition of a **multimodal analgesia flowchart** (stratified by cognitive status) would significantly enhance the manuscript's clinical utility.

Comparative Tables: A table summarizing the advantages, contraindications, and evidence levels for systemic vs. regional interventions is necessary for clarity.

Lexical Refinement: Several sections require professional linguistic editing to ensure academic precision and to resolve grammatical inconsistencies.

IV. Final Conclusion

In its current state, the manuscript provides a useful but superficial overview. To achieve the depth required for publication, the authors must shift from a descriptive narrative to a **critical, evidence-based**

synthesis that emphasizes the unique physiological vulnerabilities of the geriatric hip fracture population.

Declarations

Potential competing interests: No potential competing interests to declare.