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Peer Review

Review of: "L-Type Calcium Channel Blockers, Extrapyramidal Symptoms, and Delirium: A Systematic Review of Case Reports"

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The article presents a systematic review investigating the association between L-type calcium channel blockers (CCBs) and the onset of extrapyramidal symptoms (EPS) and delirium. The authors have compiled data from various case reports to elucidate the potential neuropsychiatric side effects of these commonly prescribed medications, particularly in older adults.

- While the review includes 23 cases, this number is relatively small for drawing broad conclusions about causality. The authors should acknowledge this limitation more explicitly and suggest that larger cohort studies are necessary.
- 2. The article could benefit from a deeper exploration of the underlying mechanisms by which Ltype CCBs might induce EPS and delirium. A more detailed discussion on the dopaminergic pathways affected by these drugs would enhance understanding.
- 3. The article lacks detailed statistical analysis of the data presented. Including basic statistics (e.g., incidence rates) could provide a clearer picture of the risks associated with different CCBs.

To address the limitations regarding the small sample size of 23 patients, future research could benefit from larger cohort studies. Here are specific examples of study designs that could be implemented:

- 1. Utilizing databases such as the National Inpatient Sample (NIS) or Medicare claims data to analyze a larger population of patients on CCBs. These databases can provide insights into adverse events related to EPS and delirium across diverse demographics.
- 2. Implementing longitudinal studies that follow patients on CCBs over time to assess the onset of EPS and delirium in relation to dosage, duration of treatment, and other medications.
- 3. Conducting a multicenter study involving multiple hospitals to recruit a larger cohort of patients using CCBs. This would allow for standardized data collection on EPS and delirium incidence, along with control for confounding variables.

Declarations

Potential competing interests: No potential competing interests to declare.