Section: General Surgery

Review Article

A REVIEW ON THE EFFECTIVENESS OF INJECTION LESURIDE IN THE TREATMENT OF POSTOPERATIVE PARALYTIC ILEUS

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ABSTRACT

Background: Postoperative paralytic ileus (PPI) is a frequent complication after abdominal surgeries, characterized by transient cessation of bowel function. Pharmacological interventions, especially prokinetic agents, have been investigated to expedite bowel recovery. Levosulpiride (Lesuride), a dopamine D2 antagonist with prokinetic activity, has shown promise in this context.

Materials and Methods: This review explores clinical literature and pharmacological studies concerning the use of injection Levosulpiride in the management of PPI. The databases searched included PubMed, Scopus, and Google Scholar, using the keywords: "Levosulpiride," "Lesuride," "postoperative ileus," and "prokinetic agents."

Results: Studies indicate that intravenous Lesuride accelerates return of bowel sounds, flatus, and oral intake in postoperative patients without significant adverse effects. Compared to other prokinetics, it offers favorable tolerability and efficacy.

Conclusion: Lesuride appears to be an effective and safe prokinetic agent in reducing the duration of postoperative ileus. Its integration into postoperative care protocols could enhance recovery, though further large-scale trials are warranted.

Keywords: Levosulpiride, Lesuride, postoperative ileus, prokinetics, gastrointestinal motility, paralytic ileus.

INTRODUCTION

Postoperative paralytic ileus (PPI) is a transient impairment of coordinated bowel motility after abdominal or pelvic surgery, in the absence of mechanical obstruction. It commonly presents with abdominal distension, absence of bowel sounds, nausea, and inability to tolerate oral intake. PPI not only delays recovery but also increases the risk of complications and healthcare costs.[1]

Although early ambulation, correction of electrolyte imbalance, and limited opioid use are part of enhanced recovery pathways, pharmacological agents have been introduced to further accelerate recovery. Among them, Levosulpiride—marketed as Lesuride—has shown clinical potential due to its dual central and peripheral dopamine D2 receptor antagonism.[2] This review evaluates the current evidence supporting the use of injection Lesuride in the treatment of PPI.

MATERIALS AND METHODS

A narrative review approach was adopted to summarize existing clinical and pharmacological literature on the use of Levosulpiride in PPI. Electronic databases such as PubMed, Google Scholar, and Scopus were searched up to March 2025. Keywords included "Levosulpiride," "Lesuride," "postoperative ileus," "paralytic ileus," and "prokinetic agents."

Inclusion Criteria

Human studies

Studies involving Levosulpiride administered postoperatively
Outcomes related to bowel sound recovery, flatus, or oral intake
Exclusion Criteria
Non-English articles
Animal studies
Studies on functional dyspepsia or chronic constipation without a postoperative context Six peer-reviewed studies that met the criteria were analyzed for this review.

RESULTS

Across the selected studies, Levosulpiride showed beneficial effects in managing PPI:

A randomized clinical trial by Jang et al. found significantly earlier bowel movement and oral intake in Levosulpiride-treated patients vs. placebo.[3]
Dall'Antonia et al. observed improved gastric emptying and reduced symptoms in a similar postoperative context.[4]
In a comparative analysis, Levosulpiride had fewer extrapyramidal effects than metoclopramide while maintaining prokinetic efficacy.[5]
Observational studies demonstrated reduced hospital stays and better patient satisfaction in patients receiving Injection Lesuride postoperatively.[6]
No severe adverse effects were reported in short-term use, though mild sedation and headache occurred in a minority of patients. Levosulpiride was often administered intravenously in doses ranging from 25 mg every 8–12 hours.

DISCUSSION

The pathophysiology of PPI involves sympathetic overactivity, inflammation, and opioid-induced motility suppression.[1] Levosulpiride's mechanism—blocking dopamine D2 receptors—enhances acetylcholine release, stimulating gastrointestinal peristalsis.[2]
Compared to older prokinetic agents like metoclopramide or erythromycin, Levosulpiride offers:
Better tolerance
No tachyphylaxis
Minimal extrapyramidal side effects in the short term
Dual action (central and peripheral) promoting gut-brain axis recovery
However, this review has limitations. The sample sizes in some studies were small, and standardized dosing regimens were inconsistent. Additionally, the lack of head-to-head trials against newer agents like prucalopride limits generalizability.
Nonetheless, findings support the consideration of Injection Lesuride as a valuable adjunct in multimodal postoperative recovery plans.

CONCLUSION

Injection Lesuride (Levosulpiride) is an effective, safe, and well-tolerated pharmacological agent for the treatment of postoperative paralytic ileus. Its ability to enhance gastrointestinal motility and reduce recovery time makes it a promising candidate for inclusion in postoperative care protocols. Future large-scale, randomized trials are necessary to validate these findings and optimize its clinical use.

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