

Itopride therapy for functional dyspepsia: A meta-analysis

- ▷ Functional dyspepsia is a common disorder with limited effective options
- ▷ Itopride improves gastric motility and symptom relief with dual mechanism of action
- ▷ Evidence from nine randomized controlled trials (n=2620) shows superior efficacy over placebo & domperidone.

Study design		9 Randomized controlled trials	
Population 2620	Intervention Itopride 50–100 mg TID	Duration 2–8 weeks	Outcomes Itopride demonstrated better efficacy in relieving symptoms of dyspepsia compared to domperidone & placebo

Comparison of Itopride & Domperidone in relieving symptoms of functional dyspepsia	
Symptom	Interpretation
Postprandial Fullness	Itopride improved post-meal fullness 21% more effectively than Domperidone. (P-value = 0.02)
Early Satiety	Itopride improved early satiety 24% more effectively than Domperidone. (P-value = 0.02)

- ▷ Itopride provided consistent and better symptom relief compared with placebo and domperidone
- ▷ Patient-reported outcomes, including postprandial fullness and early satiety, improve more significantly with Itopride
- ▷ Safety profile of itopride is better than domperidone, supporting its role as a preferred prokinetic option in functional dyspepsia management turn

Ref: Huang X, Lv B, Zhang S, Fan YH, Meng L. Itopride therapy for functional dyspepsia: A meta-analysis. World J Gastroenterol 2012; 18(48): 7371-7377 Available from: URL: <http://www.wjgnet.com/1007-9327/full/v18/i48/7371.htm> DOI: <http://dx.doi.org/10.3748/wjg.v18.i48.7371>

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Itopride hydrochloride

next generation, dual acting gastrointestinal prokinetic for fast & satisfactory relief from symptoms of gastric motility disorders

Itonorm[®]
Itopride hydrochloride 50 mg tablet

Dual Action. Fast Relief.

Drug Review

Gastric motility disorder^{1,2,3,4}

- Gastrointestinal (GI) motility disorders encompass a wide array of signs and symptoms and functional dyspepsia (FD) and gastroparesis are the main associated syndromes.
- FD diagnosed based on the Rome IV criteria- The presence of one or more of the following symptoms: epigastric pain or burning, early satiety, and postprandial fullness in the absence of structural disease.
- Prokinetic agents are the mainstay therapy for FD and gastroparesis, to improve gastric emptying and relieve symptoms.
- Conventional prokinetics (e.g. domperidone, metoclopramide) only block dopamine D2 receptors (DD2R) but have no effect on acetylcholinesterase. Thereby, complete relief of functional dyspepsia symptoms can not be achieved.

Itopride (Itonorm) - next generation dual acting gastrointestinal prokinetic

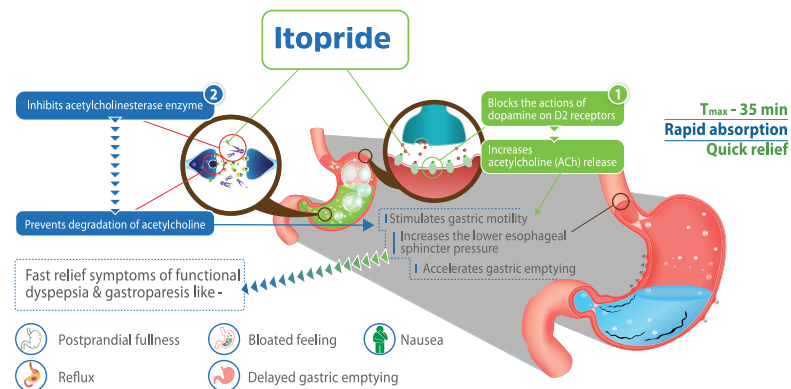


Figure: Mechanism of action of Itopride

Proven Safety and results^{6,7,8,9,10}

- Itopride does not cross the BBB hence exerts no CNS effects (e.g. headache, nausea, dyskinesia). It does not cause hyperprolactinemia and has no impact on QT interval, as a result doesn't affect heart rate.
- The drug is metabolized by flavin-containing monooxygenase 3 (FMO3) pathway hence no drug-drug interactions with CYP450 inhibitors.
- Itopride is a relatively safer molecule compared with other prokinetics, with no extrapyramidal symptoms or cardiotoxicity concerns, can be used for long-term in GI motility disorders either alone or in combination with other drugs.
- Itopride has good efficacy in terms of global patients' assessment, postprandial fullness, and early satiety in the treatment of patients with FD and shows a low rate of adverse reactions.
- Significant improvement in glycaemic indices was also evident posttreatment with itopride. Itopride showed effectiveness in addressing symptoms of reduced GI motility in patients with diabetes, with improved quality of life.
- Itopride 100 mg t.i.d is effective in decreasing pathologic reflux in patients with GERD and therefore it has the potential to be effective in the treatment of this disease.

Ref.: 1. Brian E. Lacy, Kirsten Weiser; Gastrointestinal Motility Disorders: An Update. Dig Dis 1 July 2006; 24 (3-4): 228-242.; 2. the treatment of dysmotility. EMJ Gastroenterol. 2014;3:42-7.; 3. Oshima T. Functional Dyspepsia: Current Understanding and Future Perspective. Digestion. 2024;105(1):26-33.; 4. Camilleri M, Atieh J. New Developments in Prokinetic Therapy for Gastric Motility Disorders. Front Pharmacol. 2021 Aug 24;12:711500.; 5-Dite, Petr & Rydlo, Martin & Dockal, Milan & Martinek, Arnost. (2014); 6-7. Huang X, Lv B, Zhang S, Fan YH, Meng LN. Itopride therapy for functional dyspepsia: a meta-analysis. World J Gastroenterol. 2012 Dec 28;18(48):7371-7. ; 8-a new prokinetic, in patients with mild GERD: a pilot study. World J Gastroenterol. 2005 Jul 21;11(27):4210-4.; 9. Rai RR, Choubal CC, Agarwal M, Khaliq AM, Farishta FJ, Harwani YP, Kumar SY. A Prospective Multicentric Postmarketing Observational Study to Characterize the Patient Population with Reduced Gastrointestinal Motility among Indian Diabetic Patients Receiving Itopride: The Progress Study. Int J Appl Basic Med Res. 2019 Jul-Sep;9(3):148-153. ; 10. Chaudhuri, S. (2023). Role and safety of prokinetic drugs in the treatment of upper gastrointestinal motility disorders: an Indian perspective. International Journal of Research in Medical Sciences, 11(10), 3937-3944.