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Original Research Article

Clinician's Perspectives on the Management of GERD in Indian Clinical Practice

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Abstract: ***Objective*:** To evaluate the clinical practices, diagnostic approaches, and treatment preferences of Indian clinicians in the management of gastroesophageal reflux disease (GERD), with a focus on symptom patterns, comorbidities, and the use of proton pump inhibitors, particularly pantoprazole, in various patient populations. ***Methodology***: The cross-sectional study was conducted using a structured 23-item, multiple-response questionnaire designed to capture expert opinion from clinicians experienced in managing GERD. The questionnaire explored current treatment practices, clinical observations, and preferences related to the use of pantoprazole in routine clinical settings. Data were collected electronically and analyzed using descriptive statistical methods to summarize trends and patterns in clinical practice. ***Results*:** The survey involved 447 clinicians. According to 47% of physicians, heartburn is the most common symptom presented by GERD patients in clinical practice. About 87% of respondents preferred proton pump inhibitors (PPIs) as the first-line treatment for GERD, with 94% identifying pantoprazole as their preferred PPI in routine practice. The majority (91.28%) of the experts chose pantoprazole for its rapid onset of action in relieving nighttime heartburn, and nearly 93% favored it for its 24-hour efficacy. Around 38% cited faster onset of action as the main advantage of pantoprazole. For managing refractory GERD, 62% of clinicians preferred a combination of PPI and prokinetic agents. Domperidone is the preferred prokinetic among 55% of participants when used alongside pantoprazole in patients with functional dyspepsia and gastroparesis. ***Conclusion***: This study highlights the preference for pantoprazole as the first-line PPI in GERD management in Indian settings, valued for its rapid and sustained acid suppression. Domperidone, often used alongside pantoprazole, is preferred for managing functional dyspepsia and gastroparesis.

Keywords: Gastroesophageal Reflux Disease, Pantoprazole, Domperidone, Proton Pump Inhibitors.

INTRODUCTION

Gastroesophageal reflux disease (GERD) significantly impacts patients' quality of life and poses a growing burden on healthcare systems worldwide. Globally, the number of GERD cases rose by 77.5% between 1990 and 2019, from 441.57 million to 783.95 million [1]. In India, the prevalence ranges from 7.6% to 30%, with a noticeable increase attributed to evolving dietary habits, sedentary lifestyles, and rising stress levels across both younger and older populations [2, 3].

Although clinical guidelines offer a structured approach to managing GERD, real-world treatment often varies depending on patient demographics, symptom severity and patterns, and individual physician preferences. Challenges such as nighttime heartburn, persistent or refractory symptoms, and coexisting conditions like hypertension and irritable bowel syndrome add complexity to everyday clinical decision-making [4]. Despite being highly prevalent, GERD continues to be underdiagnosed and inadequately treated, highlighting the urgent need for increased awareness, timely diagnosis, and the implementation of standardized management protocols in Indian clinical practice.

Acid suppression remains the cornerstone of GERD treatment, with proton pump inhibitors (PPIs) serving as the first-line therapy. Among these, pantoprazole is one of the most widely prescribed PPIs [5, 6]. Recommended by the Indian

Society of Gastroenterology, the Association of Physicians of India (API-ISG), and the American College of Gastroenterology (ACG), PPIs are advised for empirical treatment of GERD [7]. Pantoprazole, a first-generation PPI, was approved by the FDA in 2000 for treating erosive esophagitis associated with GERD. Pantoprazole permanently binds to the proton pump, which effectively decreases the secretion of gastric acid [8].

Pantoprazole is more effective than histamine-2 receptor antagonists in alleviating acid reflux symptoms, healing esophagitis, and enhancing overall quality of life. It is also considered safe and effective for a wide range of patients, including the elderly and individuals with mild to moderate liver disease [5]. Oral pantoprazole has also been associated with improved quality of life and high patient satisfaction [9]. As GERD continues to be a leading cause of primary care visits and a persistent public health concern, optimizing its management is critical.

This survey aimed to capture expert perspectives on diagnostic approaches and treatment preferences among Indian clinicians in the management of GERD, with a focus on symptom patterns, comorbidities, and the use of PPIs, particularly pantoprazole, across various patient populations.

METHODOLOGY

Study Settings

A cross-sectional study was carried out among physicians specialized in managing GERD in the major Indian cities from June 2024 to December 2024. The study was conducted after getting approval from Bangalore Ethics, an Independent Ethics Committee which is recognized by the Indian Regulatory Authority, Drug Controller General of India

Participants

A convenient sampling technique was used, and an invitation was sent to leading clinicians in managing GERD in the month of March 2024 for participation in this Indian survey. About 447 doctors from major cities of all Indian states, representing the geographical distribution, shared their willingness to participate and provide necessary data. Practitioners were requested to complete the questionnaire without discussing with peers, and they had the option to skip any questions they preferred not to answer. Written informed consent was obtained from each clinician before initiation of the study.

Questionnaire

The questionnaire booklet named PRIME (Pantoprazole + Domperidone Role in Managing GERD) study was sent to the clinicians who were willing to participate in this study. The PRIME study questionnaire consisted of 23 questions focusing on the diagnosis, clinical presentation, comorbidities, treatment preferences, and experiences of specialists in managing GERD in Indian patients. Reliability, as determined by a split-half test (coefficient alpha) was adequate but should be improved in future versions of the questionnaire. A study of criterion validity was undertaken to test the questionnaire and to develop methods of testing the validity of measures of Physicians' Perspectives. However, the extraneous variable in this includes the clinician's experience, usage of the newer drugs, etc. The two criteria used were the doctors' perspectives from the clinical practice and the assessment of an external assessor and statistician.

Statistical Analysis

The data were analyzed using descriptive statistics. Categorical variables were presented as percentages to provide clear insight into their distribution. The frequency of occurrence and the corresponding percentage were used to represent the distribution of each variable. Graphs were created to visualize the distribution of the categorical variables, utilizing Microsoft Excel (version 16.0.18025.20030).

RESULTS

The survey included 447 respondents, and more than half (52.13%) of experts reported that 11–20% of their young patients (≤45 years) present with symptoms of heartburn and regurgitation. According to 47% of physicians, heartburn is the most common symptom observed in GERD patients presenting to routine clinical practice (Fig. 1).

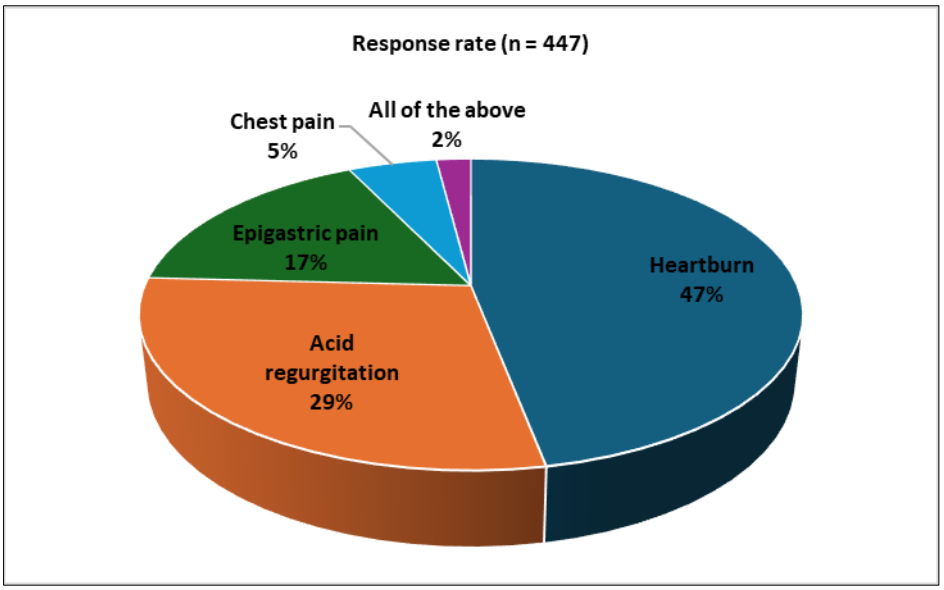

Fig. 1: Distribution of responses to the common symptoms noted in GERD patients presenting to routine practice

More than half (54.14%) of the respondents indicated that 11–20% of their young patients complain of nighttime heartburn. About 47% of experts reported that 11–20% of their elderly patients experience heartburn. Half (50.56%) of the respondents identified diet (spicy food/aerated drinks) as the most common predisposing factor in patients with GERD. Around 45% of experts identified hypertension as the most common comorbid condition in patients with nighttime heartburn associated with GERD.

Approximately 71% of respondents considered patient questionnaires on GERD symptoms to be the most important diagnostic tool for identifying heartburn and/or regurgitation. About 87% of physicians preferred PPIs as the first-line treatment for GERD in routine practice (Fig. 2), and 94% reported that among PPIs, pantoprazole is the preferred choice in clinical practice (Fig. 3). The majority of respondents (91.28%) preferred pantoprazole for its rapid onset of action in managing nighttime heartburn (Table 1), and about 93% favored it for its 24-hour efficacy (Table 2).

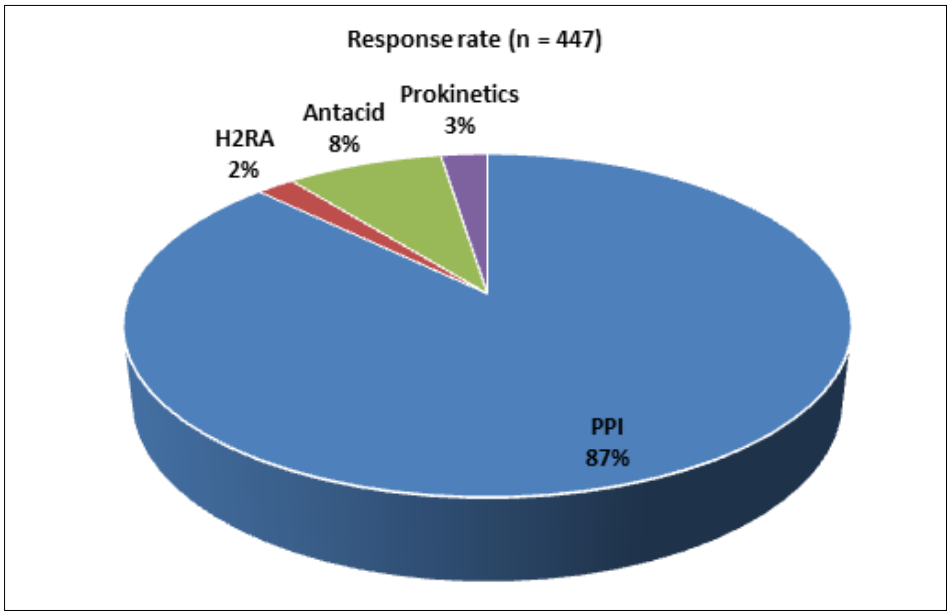

Fig. 2: Distribution of responses on the first-line treatment for GERD in routine practice

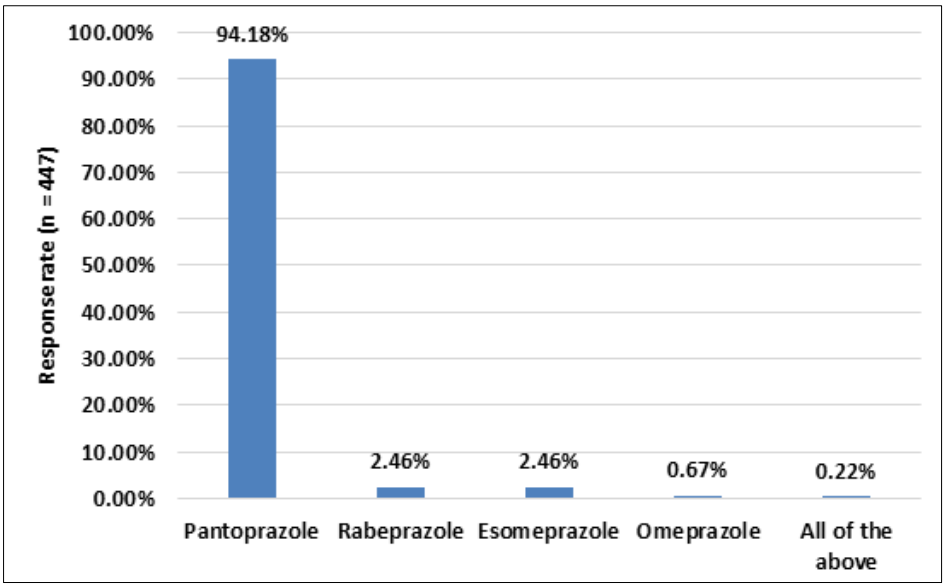

Fig. 3: Distribution of responses on the most preferred PPI in clinical practice

Table 1: Distribution of responses on the preferred PPI for rapid onset of action in managing nighttime heartburn associated with GERD in clinical practice

Proton pump inhibitor	Response rate (n = 447)
Omeprazole	0.89%
Rabeprazole	7.61%
Pantoprazole	91.28%

Table 2: Distribution of responses on the preferred PPI for its 24-hour action in clinical practice

Preference	Response rate (n = 447)
Omeprazole	1.34%
Rabeprazole	5.37%
Pantoprazole	93.06%

About 40% of respondents considered efficacy as the most important parameter when prescribing PPIs. Approximately 38% identified a faster onset of action as the key advantage of pantoprazole (Table 3). Half of the experts (50.11%) reported that 21–30% of their patients required add-on domperidone with pantoprazole. About 40% of participants indicated that the most common duration for prescribing the pantoprazole–domperidone combination is 4 weeks.

More than half (56.82%) of respondents stated pellets/capsules as the preferred dosage form of pantoprazole. Around 41% reported that 20–30% of their total GERD patients suffer from refractory GERD. For managing refractory GERD, 62% of respondents preferred a PPI + prokinetic combination (Table 4). About 55% of participants reported that domperidone is the preferred prokinetic to be used alongside pantoprazole in patients with functional dyspepsia and gastroparesis (Fig. 4).

Table 3: Distribution of responses on advantages observed with pantoprazole

Advantage	Response rate (n = 447)
Faster onset of action	37.81%
Prolonged acid suppression	21.7%
Well-tolerable	26.62%
Prescribed for a longer period	11.63%
All of the above	2.01%

Table 4: Distribution of responses on preferred treatment in refractory GERD

Preference	Response rate (n = 447)
H2 blockers – prokinetic combination	19.91%
Double dose of PPI	14.09%
PPI + prokinetic	62.19%
Combination of two PPIs	3.58%

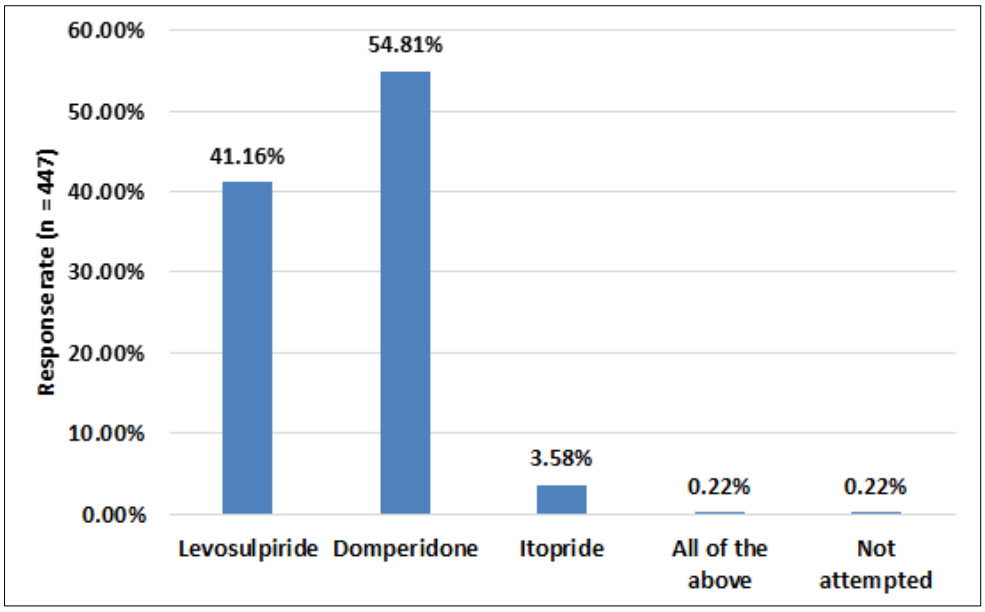

Fig. 4: Distribution of responses on preferred prokinetic along with pantoprazole in patients with functional dyspepsia and gastroparesis

About 44% of experts reported that 11–20% of their GERD patients complain of abdominal pain, mucus in stools, and difficulty in passing stools, suggestive of irritable bowel syndrome. Regarding non-erosive reflux disease (NERD), 56% of respondents indicated that 11–20% of their overall GERD population has NERD. According to 53% of respondents, the typical duration of treatment with pantoprazole for GERD patients is 4 weeks. Around 36% of participants reported that 5–10% of their patients require intravenous pantoprazole.

DISCUSSION

The survey highlights that Indian clinicians commonly manage GERD using symptom-based diagnostic tools, with a strong preference for pantoprazole due to its efficacy, tolerability, and rapid onset of action. The current study reinforces this trend, reporting pantoprazole as the most commonly preferred PPI in routine clinical practice. This finding aligns with a previous study by Ahad M. *et al*., that pantoprazole was prescribed in approximately 90% of PPI cases, significantly higher than other PPIs [10]. Similarly, a prior survey conducted by the current authors reported that 79% of clinicians favored pantoprazole for GERD management [11]. In addition, Garje *et al*., found that pantoprazole is the most preferred PPI among gastroenterologists and various specialist groups, attributed not only to its clinical effectiveness but also to its low potential for drug–drug interactions, making it a safer choice in patients with multiple comorbidities or on polypharmacy [12].

The majority of respondents in the current survey reported that heartburn is the most common symptom with which GERD patients present in routine clinical practice. This finding is consistent with previous studies. Broderick *et al*., in a large clinic-based evaluation, found that heartburn was the most frequent chief complaint, reported by 61% of patients with confirmed GERD. The overall prevalence of symptoms in their cohort was 82% for heartburn and 59% for regurgitation, reinforcing the significance of these symptoms in clinical diagnosis [13]. Supporting this further, a population-based study by Kumar *et al.,* found that 42.9% of individuals reported heartburn at least once a week, while 34.8% experienced regurgitation, highlighting the high burden of GERD symptoms in the general population as well [14]. These findings underline the importance of early symptom recognition, particularly heartburn, in guiding timely GERD management.

In the present survey, clinicians demonstrated a clear preference for PPIs as the first-line treatment for GERD. This observation is supported by findings from Padhy *et al*., who reported that 92% of physicians regarded PPIs as the primary acid-suppressive therapy for GERD [15]. The API-ISG, in their consensus guidelines, also endorse empiric PPI therapy as the preferred initial approach for adults presenting with typical GERD symptoms, either as monotherapy or in combination with prokinetics, and preferably over H2-receptor antagonists [16]. These findings reinforce the central role of PPIs in the standard management of GERD in the Indian clinical settings.

The majority of participants in the present survey preferred pantoprazole for its rapid onset of action in managing nighttime heartburn, with many identifying faster symptom relief as its key advantage. Supporting this, Scholten and Hole conducted a comparative study demonstrating that pantoprazole provided significantly faster relief from both daytime and

nighttime GERD-related symptoms [17]. Similarly, Richter *et al*., reported that pantoprazole offers prompt symptomatic relief and is effective in healing GERD [18]. The strong preference for pantoprazole among clinicians in this survey may be attributed to its consistent 24-hour acid suppression, which is particularly important for managing nocturnal symptoms. Several studies have shown that pantoprazole begins suppressing gastric acid within one hour and maintains stable intragastric pH control throughout the day and night [19, 20]. In a randomized, double-blind, placebo-controlled, crossover study, pantoprazole 40 mg reduced meal-stimulated acid secretion by 36% within 4 to 6 hours of the first dose, outperforming omeprazole 20 mg over five days [21]. Furthermore, a study evaluating pantoprazole-magnesium 40 mg daily for four weeks reported an 80% reduction in physician-assessed GERD symptoms, with nighttime GERD resolved in 75% of patients [22].

In the current survey, domperidone emerged as the preferred prokinetic agent, commonly used in combination with pantoprazole, for the management of functional dyspepsia and gastroparesis. Previous studies have shown that domperidone provides up to a seven-fold improvement in symptom relief compared to placebo in patients with functional dyspepsia. Furthermore, the combination of domperidone and pantoprazole has been demonstrated to significantly alleviate symptoms such as postprandial fullness and early satiety, with a favourable tolerability profile [23-25].

The current survey offers valuable insights into clinicians' practices and preferences in GERD management, particularly highlighting the widespread use of pantoprazole in the Indian setting. These findings may inform future clinical decision-making, local treatment algorithms, and educational initiatives. A major strength of this study is the use of a well-structured and validated questionnaire to capture expert opinion across a diverse clinical base. However, certain limitations should be acknowledged. The findings are based on clinician-reported preferences and may be influenced by individual experiences and subjective judgment, potentially introducing response bias. Moreover, the survey may not fully reflect evolving evidence or newer therapeutic approaches. To enhance the applicability of these insights, future prospective studies or real-world observational studies are recommended to validate the survey results and better inform standardized treatment pathways for GERD in Indian clinical practice.

CONCLUSION

This expert perspective study highlights that pantoprazole remains the preferred PPI among Indian clinicians for the management of GERD, particularly due to its rapid onset of action, 24-hour acid suppression, and favorable safety profile. Domperidone, commonly used in combination with pantoprazole, is frequently prescribed for patients with functional dyspepsia and gastroparesis, further reinforcing its clinical utility. The survey findings also underscore the need for ongoing awareness, timely diagnosis, and tailored treatment strategies to optimize GERD management.

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Conflicts of Interest Disclosures: None

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