



Effects of Rebamipide on Gastrointestinal Symptoms in Patients with Type 2 Diabetes Mellitus (*Diabetes Metab J* 2016;40:240-7)

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Diabetes can affect the entire gastrointestinal (GI) tract, and GI symptoms present more commonly in diabetic patients than in the general population [1]. Usually, patients manifest dysphagia, heartburn, nausea and vomiting, abdominal pain, constipation, diarrhea, and fecal incontinence [2]. These manifestations may result in nutritional compromise and negative impacts on health-related quality of life and glycemic control. Early identification and optimal management of GI complications are important for appropriate metabolic control of diabetes and improvement in quality of life of patients.

Currently available pharmacological therapies include metoclopramide, domperidone, erythromycin, and antiemetics. However, data from previous studies presented concerns regarding side-effects and limitations of these medications [3-6]. Although increasing insights into the specific mechanisms involved in the neural control of intestinal motility and gut-brain communication can potentially lead to new therapeutic options targeting specific mechanisms beyond current treatments, the best medical treatment still remains to be challenged [7].

In this article entitled “Effects of rebamipide on gastrointestinal symptoms in patients with type 2 diabetes mellitus,” Park et al. [8] evaluated the improvement in GI symptoms after rebamipide treatment in patients with type 2 diabetes mellitus (T2DM). Rebamipide treatment for 12 weeks improved atypical GI symptoms, such as gastroesophageal reflux, gastropare-


sis, peptic ulcer, and constipation in patients with T2DM. This study is quite valuable in that it establishes a potential option for GI symptoms management in patients with T2DM. The authors showed their results very clearly in this manuscript. In my opinion, it would add more value to their findings if they considered the points mentioned below.

Incretin-based therapy in T2DM may result in retardation of gastric emptying. It can induce GI symptoms such as nausea, vomiting, and postprandial fullness [9]. Therefore, it might be helpful if the authors consider the confounding effects of incretin-based therapy and its status to identify the effect of rebamipide on GI symptoms in patients with T2DM more clearly.

Lastly, the authors evaluated the effects of rebamipide based on the changes in symptoms by using diabetes bowel symptom questionnaire. Consequently, there were a lack of objective diagnostic tools, just as the authors mentioned. It would be very interesting to evaluate the effect of rebamipide with diagnostic tests, which would better demonstrate the improvements.

CONFLICTS OF INTEREST

No potential conflict of interest relevant to this article was reported.

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REFERENCES

1. Bytzer P, Talley NJ, Leemon M, Young LJ, Jones MP, Horowitz M. Prevalence of gastrointestinal symptoms associated with diabetes mellitus: a population-based survey of 15,000 adults. *Arch Intern Med* 2001;161:1989-96.
2. Verne GN, Sninsky CA. Diabetes and the gastrointestinal tract. *Gastroenterol Clin North Am* 1998;27:861-74.
3. Pasricha PJ, Pehlivanov N, Sugumar A, Jankovic J. Drug Insight: from disturbed motility to disordered movement: a review of the clinical benefits and medicolegal risks of metoclopramide. *Nat Clin Pract Gastroenterol Hepatol* 2006;3:138-48.
4. Kenney C, Hunter C, Davidson A, Jankovic J. Metoclopramide, an increasingly recognized cause of tardive dyskinesia. *J Clin Pharmacol* 2008;48:379-84.
5. McCallum RW, Ricci DA, Rakatansky H, Behar J, Rhodes JB, Salen G, Deren J, Ippoliti A, Olsen HW, Falchuk K, Hersh T. A multicenter placebo-controlled clinical trial of oral metoclopramide in diabetic gastroparesis. *Diabetes Care* 1983;6:463-7.
6. Ray WA, Murray KT, Meredith S, Narasimhulu SS, Hall K, Stein CM. Oral erythromycin and the risk of sudden death from cardiac causes. *N Engl J Med* 2004;351:1089-96.
7. Kashyap P, Farrugia G. Diabetic gastroparesis: what we have learned and had to unlearn in the past 5 years. *Gut* 2010;59:1716-26.
8. Park S, Park SY, Kim YJ, Hong SM, Chon S, Oh S, Woo JT, Kim SW, Kim YS, Rhee SY. Effects of rebamipide on gastrointestinal symptoms in patients with type 2 diabetes mellitus. *Diabetes Metab J* 2016;40:240-7.
9. American Diabetes Association. Approaches to glycemic treatment. *Diabetes Care* 2016;39 Suppl 1:S52-9.