COMMENTARY

Main Therapeutic Measures for the Treatment of Zollinger-Ellison Syndrome

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INTRODUCTION

Zollinger-Ellison syndrome is a rare condition in which one or more tumors develop in the pancreas or upper intestine (duodenum). Gastrinomas are tumors that secrete a lot of gastrin, a hormone that causes your stomach to create too much acid. Peptic ulcers, as well as diarrhoea and other symptoms, result from the excess acid. Zollinger-Ellison syndrome can strike at any age, however most patients are diagnosed between the ages of 20 and 60. Zollinger-Ellison syndrome is usually treated with medications that lower stomach acid and cure ulcers [1].

Due to the tumors in Zollinger-Ellison are generally small and difficult to identify, a procedure to remove them requires a skillful surgeon. If you only have one tumor, your doctor may be able to remove it surgically, but if you have numerous tumors or tumors that have spread to your liver, surgery may not be an option. Your doctor, on the other hand, may propose removing a single huge tumor even if you have many tumors. Almost all cases of excessive acid production can be managed. Proton pump inhibitors are the first line of treatment for this condition. In Zollinger-Ellison syndrome, these drugs are useful at reducing acid production. Proton pump inhibitors are potent medications that lower acid levels by inhibiting the operation of small "pumps" within acid-producing cells. Lansoprazole (Prevacid), omeprazole (Prilosec, Zegerid), pantoprazole (Protonix), rabeprazole (Aciphex), and esomeprazole are some of the most commonly prescribed drugs (Nexium) [2].

According to the Food and Drug Administration, long-term use of prescription proton pump inhibitors has been linked to an increased risk of hip, wrist, and spine fractures, particularly in those over 50. This is a minor danger that should be balanced against the acid-blocking benefits of these drugs. Octreotide (Sandostatin), a medicine comparable to the hormone somatostatin, may aid some people by counteracting the effects of gastrin [2].

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GOAL OF ZOLLINGER-ELLISON SYNDROME THERAPY

Controlling gastric hypersecretion is the goal of ZES therapy in order to improve symptoms and repair ulcers. The reduction of the BAO below 10 mEq/h in the hour preceding the next administration of the drug in cases of uncomplicated ZES and below 5 mEq/h in cases of ZES associated with MEN 1, gastro-esophageal reflux disease, or in patients undergoing a partial gastrectomy has been shown in several studies to be a reliable criterion for controlling hypersecretion [3].

Some studies have shown that the average dosage of omeprazole capable of regulating gastric hypersecretion in the majority of patients is between 60 and 100 mg of the medicine per day, using the acute upward dose titration method, which is commonly accepted for determining the initial dosage of the drug. The level of acid inhibition when the "steady state" has been reached is the only reliable parameter that can demonstrate the absence of mucosal damage; therefore, the BAO should be measured every 3-4 weeks, and the patient should be evaluated by endoscopy and acid secretion analysis at intervals of 3 to 6 mo and then 6 to 12 mo [4].

The goal of therapy is to achieve a BAO of 1 to 10 mmol/h; if complete control of acid hypersecretion is achieved, the omeprazole dosage should be reduced by half and the patient should be re-evaluated. If the BAO is larger than 10 mmol/h, the PPI dosage should be progressively raised, and omeprazole doses greater than 60 mg (or similar doses of another PPI) should be used in two separate doses. The inability to control gastric acid secretion could be a significant problem for patients with ZES, and some studies have shown that a starting dose of 20 mg is insufficient to control acid secretion [5].

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