

Refractory GERD or refractory symptoms

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The prevalence of gastroesophageal reflux disease (GERD) has been increasing rapidly in Taiwan, partly due to the westernization of diet and life style. Proton-pump inhibitors are the most effective medication to suppress gastric acid secretion and relieve reflux symptoms. However, up to 40% of patients have poor responses to the most potent acid suppressants, proton-pump inhibitors (PPI) and thus refractory GERD (also known as PPI failure), defined as persistent reflux symptoms or endoscopic visible lesions despite of standard (or double) dose PPI for at least 2 (or 3) months, is increasing common in our clinical practice. The pathogenesis of refractory GERD is complex, ranging from mechanically impaired barrier to visceral hypersensitivity. Although symptom-based approach with validated questionnaires such as Reflux Disease Questionnaire (RDQ) or GerdQ has gained popularity in recent years, cultural and linguistic difference may affect the symptomatology in different countries and areas, causing mis-interpretation of patients and inconsistencies in reporting their symptoms. Recent studies have demonstrated that up to 30% of patients with refractory reflux symptoms often do not have true GERD.

Currently, endoscopy is the mainstay of diagnostic tool for patients with reflux

symptoms in Taiwan, but a great proportion of patients have no esophageal mucosa changes on examination, so call non-erosive reflux disease (NERD). On the other hand, 24-hour esophageal pH monitoring allows quantitative measurement of acid exposure in the lower esophagus. It is sensitive and specific in the diagnosis of GERD, especially for NERD patients. The multi-channel intraluminal impedance (MII)-pH catheter combines impedance channels to conventional pH catheters. A pH electrode at 5 cm above the lower esophageal sphincter identifies the type of reflux. The ability to detect nonacid or weakly acidic reflux events makes MII-pH a more powerful tool than pH detection alone, especially when reflux symptoms are unresponsive to high-dose acid suppression. Moreover, MII-pH enables the establishment of the reflux-symptom association, and therefore is very useful in clarifying the underlying mechanism of refractory GERD. At present, combined MII-pH testing has not been widely used in Taiwan but is gaining popularity. In an era of total reflux awareness, tailored medicine with the application of combined MII-pH testing for patients with refractory reflux symptoms to PPI may be anticipated.