

Reflux Testing: Why, When & How?

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Gastroesophageal reflux disease (GERD) is one of the most common diseases of the GI tract in daily clinical practice. GERD has been defined as “a condition which occurs when gastric refluxates cause troublesome symptoms and/or complications. Typical reflux symptoms include heartburn and acid regurgitation, whereas atypical symptoms of GERD include cough, chest pain, hoarseness, and wheezing or asthma symptoms. Esophageal pH testing is not routinely recommended as an initial tool for diagnosing patients with typical or atypical reflux symptoms. Esophageal pH testing is recommended in patients with typical GERD symptoms who are refractory to a trial of PPI therapy, and those with atypical symptoms which are suspected from acid reflux or those with atypical symptoms despite PPI therapy.

Ambulatory esophageal reflux testing can be performed by several different ways, including transnasal catheter-based pH recording or wireless sensors that allows detect reflux episodes by measuring drops in esophageal pH, which is typically under pH value of 4. Combined impedance and pH monitoring detecting the occurrence of changes in the resistance to electrical current provides additional diagnostic advantage by allowing differentiate reflux bolus characteristics (liquid, gas, or mixed), bolus transit pattern (antegrade or retrograde bolus), location of refluxate (proximal), and acidity (acid or nonacid reflux). Utility of such tests have been advanced by the application of symptom-reflux association analysis. Combined impedance-pH may improve clinical management by documenting nonacid reflux in the evaluation of endoscopy-negative patients with typical reflux symptoms despite PPI therapy. The increased diagnostic yield of impedance monitoring over conventional pH monitoring for symptom association is highest when performed on PPI therapy, whereas such utility may help exclude GERD when performed off PPI therapy in those with PPI-refractory symptoms. Esophageal reflux monitoring is thus an important diagnostic tool in the management of GERD when this modality is utilized and interpreted properly.

Therefore, clinical awareness of these modalities is important for better management of GERD in clinical practice. In this review we will provide an update on characteristics and detail for each modality, and enhance our knowledge about how to incorporate them into clinical practice.