ESOPHAGEAL PH MONITORING

Outpatient esophageal pH monitoring can be a useful tool in diagnosing gastroesophageal reflux disease, especially atypical manifestations. Unfortunately, many children have difficulty tolerating the traditional pH probe, which is placed into the esophagus through the nares attached by a wire. In addition to the discomfort of having a wire extending from their nose to the distal esophagus, they also suffer from the inconvenience of attachment of the proximal part of the wire to the receiver. The Bravo pH probe technology has been a phenomenal development in improving comfort and lifestyle for the patient undergoing esophageal pH monitoring.

The Bravo pH probe capsule is a 26 x 6 x 6.3-mm device, which is placed in the distal esophagus at the time of upper endoscopy. A suction device is used to attach the probe to the superficial esophageal lining where it generally stays for a period of 3-5 days and then falls off. For 48-hour period of time, measurements are recorded in order to detect stomach acid in the esophagus and the data is transmitted to a receiver device, approximately the size of the pager, which is worn outside of the body. The patient and their family are asked to keep a journal recording activities such as meals, sleep, and bothersome symptoms. The information collected is used to establish a correlation between the patient's symptoms and gastroesophageal reflux episodes. As the esophageal lining undergoes normal cell turnover, the capsule falls off. It then passes automatically, travels through the digestive tract and is shed in the stool a few days later. (No, the patient does not have to return the capsule, only the receiver!). The first case report of upper pH monitoring in children using the Bravo capsule was April of 2004 in *The Laryngoscope.* Since that time, the technique has been widely used in children as young as 3-4 years old with a very high safety profile.