

## **Patient Information on Oesophageal Manometry and 24-hour Ambulatory Oesophageal pH Study**

### **Introduction**

The oesophagus is a conduit connecting the oropharyngeal cavity and the stomach. It transports food to the stomach by peristalsis. Abnormal or failed peristalsis may result in pain, difficulty in swallowing or vomiting. Abnormal reflux of acid into the oesophagus from the stomach may result in discomfort or inflammation of the oesophagus. Oesophageal manometry examines the peristaltic function of the oesophagus. 24-hour ambulatory oesophageal pH study assesses the changes in acidity of the esophageal content over a period of 24 hours. Patients with difficulty in swallowing, non-cardiac chest pain, achalasia, gastroesophageal reflux, heartburn, etc may require either or both examinations to investigate the cause of the symptom.

### **The Procedure**

#### ***Oesophageal Manometry***

Prior to the examination, local anaesthetic spray may be applied to the nostril of the patient. About a minute later, a flexible catheter (about 5mm) with sensors will be passed into the oesophagus through the nose. The patient will then be asked to attempt a series of “coached” water or food swallows, the signals will be taken up by the sensors on the catheter and are recorded on the computer for analysis. The whole test takes approximately 20-30 minutes.

#### ***24-hour Ambulatory Oesophageal pH Study***

After application of local anaesthetic spray to the nostril, a thin flexible catheter (about 2mm) with sensors will be passed into the oesophagus through the nose and secured to the nose by a piece of tape. The catheter will remain in the oesophagus for 24 hours and is attached to a small recording device. This device will record the change of acidity within the oesophagus. The patient needs to record the time of food or fluid intake, time of sleep and when any symptom(s) occurs. This allows the doctor to evaluate any relationship between the change in oesophageal pH and the symptoms. Except for taking a bath or shower, the patient should carry out usual daily activities. The catheter and device will be removed for analysis the following day.

### **Risk and Complication**

The catheters used in the examination are thin and do not affect breathing or eating generally. Provided that the patients follow the instructions of the medical staff, the procedure does not cause too much discomfort. It may cause discomfort to the nose and throat. Rarely, it may cause nasal or pharyngeal trauma or bleeding. It may also induce vomiting, aspiration, or in rare circumstance, spasm of the bronchus. After years of research and practice, it has been concluded that oesophageal manometry and 24-hour ambulatory oesophageal pH study are very safe procedures.

### **Before the Procedure**

Patient should not eat or drink 6 hours prior to the tests. Patients undergoing 24-hour ambulatory oesophageal pH study should take a bath or shower before the examination. If the patient is on medication for the upper digestive tract, the drug should be stopped prior to the study according to the instruction given by the doctor. Patient should inform the medical staff of any major medical problems including diabetes, hypertension and pregnancy, and continue their medications as instructed. Patients should also provide information concerning the current medications used especially antiplatelet and anticoagulation drugs and any allergic history. They should avoid alcohol intake or smoking before the procedure. Elderly patients and those with difficulty in walking should be accompanied by a relative.

### **After the Procedure**

Patients should attend the follow-up appointment as scheduled for the study results. They should also follow the instructions of the medical staff regarding further use of medications.

### **Follow Up**

Patients can contact the unit providing the procedure within office hours for any discomfort after the procedure, or if the patients have any question about the examination result and drug treatment. However, if serious events develop, such as passage of large amount of blood, severe abdominal pain, etc. patients should seek medical advice at the nearest Accident and Emergency Department.

### **Remarks**

This is general information only and the list of complications is not exhaustive. Other unforeseen complications may occasionally occur. In special patient groups, the actual risk may be different. For further information, please contact your doctor.