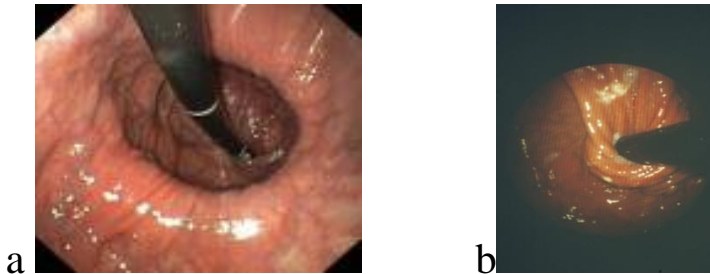


Gastro-oesophageal Reflux Disease – Laparoscopic treatment of Hiatus Hernia

What is a Hiatus Hernia

It is an anatomical abnormality in which part of the stomach protrudes through the diaphragm and up into the chest.

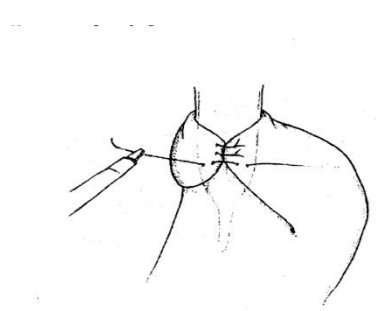
Reflux disease is often associated with presence of a hiatus hernia. Typical symptoms of this condition are heartburn and regurgitation. Nearly 40% of the population in the Western countries will suffer from these symptoms at least once a month with 15% experiencing significant symptoms to seek medication in the form of acid suppression therapy. Long term exposure of the lower gullet to acid may cause a change in the lining namely Barrett's oesophagus. This condition is precancerous and requires to be monitored.



Endoscopic view of a)Hiatal hernia and b)following surgical repair with fundoplication

Apart from acid some patients complain of bitter or bile taste in the mouth. Bile reflux has been a subject of my research and I have written widely on this subject. Whilst there is very effective treatment for acid reflux with drugs such as PPI omeprazole (losec) and lanzoprazole (zoton), some patients are intolerant to medication or their symptoms are severe so as to interfere with their day to day activity and affect sleep or some who suffer from persistent cough and

chest infections due to reflux. In such patients I offer to perform keyhole surgical treatment called as Laparoscopic Nissen fundoplication. In this procedure the hiatus hernia is repaired and the stomach wall is used to create a wrap around the lower end of the gullet to 'strengthen' its weak muscle sphincter.



Keyhole surgery for Reflux disease – Laparoscopic Nissen Fundoplication

How to relieve heartburn

a) Lifestyle measures – reduce weight, cease smoking, avoid spicy and fatty food, wear loose clothes, elevate head end of bed or use 2-3 pillows when asleep.

b) Medication- Simple antacid such gaviscon for the occasional mild symptoms. Proton Pump inhibitors such as omeprazole and lansoprazole for established disease.

c) Surgery – Laparoscopic Fundoplication or LINX magnetic ring implant

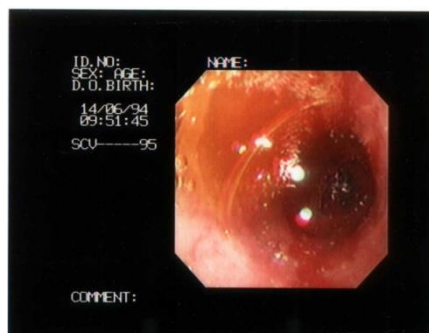
I would advise one to seek medical consultation if symptoms are severe or persistent despite medication or if you have difficulty in swallowing. You may undergo OGD which involves examination of the gullet, stomach and duodenum with an endoscope to assess the damage if any.

Specialised tests include oesophageal manometry and 24hr pH monitoring are used to assess extent of reflux and function of the

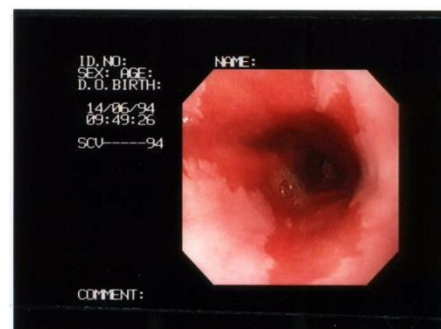
gullet. This involves passing a small tube through the nose and attaching it to a monitor.

What is Barrett's Oesophagus

Barrett's oesophagus occurs when the lining at the bottom of the gullet changes (metaplasia) from a squamous type to intestinal columnar. It is caused by chronic inflammation from reflux of gastric and bile juices from the stomach due into the gullet. This lining has a higher chance of turning malignant. Patients with Barrett's Oesophagus are 30-200 times more likely to develop adenocarcinoma (oesophageal cancer) than the general population. The condition therefore needs to be monitored usually by annual endoscopic examination.



Refluxing juices into the gullet



Barrett's lining

Treatment

- 1) Control of acid reflux with PPI – Lanzoprazole and omeprazole
(No medical treatment of bile reflux is available at present)

- 2) Surgical treatment – Laparoscopic Nissen Fundoplication ,
LINX
- 3) Local ablation procedures – Radio frequency HALO