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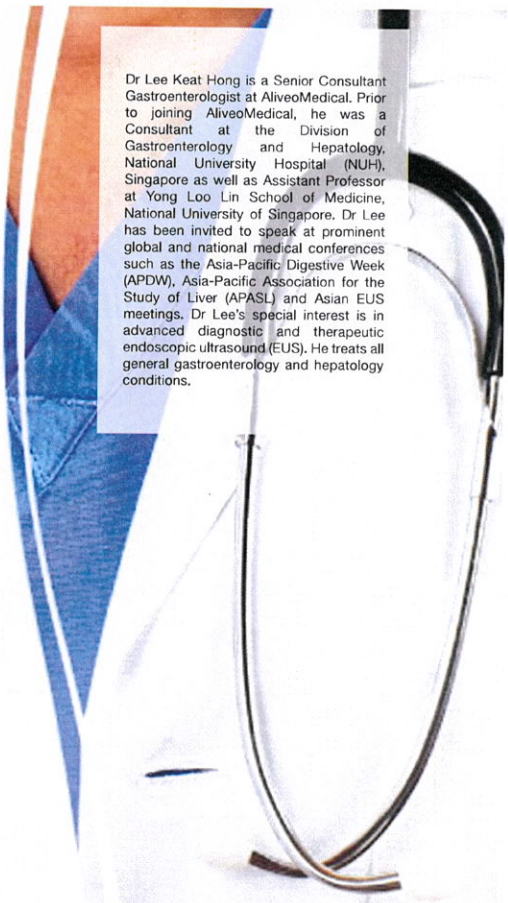
MEDICAL CONNECT

Gastroesophageal reflux disease (GERD)

Dr Lee Keat Hong
Consultant Gastroenterologist
AliveoMedical
Mt. Elizabeth Novena Medical Centre
#09-44
Tel: 62688360, enquiry@aliveomedical.com



Dr Lee Keat Hong is a Senior Consultant Gastroenterologist at AliveoMedical. Prior to joining AliveoMedical, he was a Consultant at the Division of Gastroenterology and Hepatology, National University Hospital (NUH), Singapore as well as Assistant Professor at Yong Loo Lin School of Medicine, National University of Singapore. Dr Lee has been invited to speak at prominent global and national medical conferences such as the Asia-Pacific Digestive Week (APDW), Asia-Pacific Association for the Study of Liver (APASL) and Asian EUS meetings. Dr Lee's special interest is in advanced diagnostic and therapeutic endoscopic ultrasound (EUS). He treats all general gastroenterology and hepatology conditions.

GERD is a medical condition that occurs when reflux of gastric contents into the esophagus results in troublesome symptoms or even complications (Montreal definition). Patients typically present with symptoms of heartburn, regurgitation or acid brash. Other atypical symptoms (chest pain, bloating, respiratory symptoms such as coughing, sore throat, hoarseness of voice) may be present as well. The incidence of GERD in Singapore has been estimated to be between 10-20% of the population.Chronic GERD has been associated with lower quality of life and may even interfere with activities of daily living, work and even sleep.

The underlying predisposing factors and pathophysiology for GERD are often multifactorial. Underlying impairment of physiologic anti-reflux mechanism (e.g. inappropriate lower esophageal spinchter (LOS) relaxation, impaired esophageal peristalsis, excess gastric acid secretion) often co-exist with predisposing factors (raised body mass index, alcohol, smoking, dietary factors, pregnancy) resulting in GERD symptoms.

Although uncommon, chronic GERD is associated with complications such as esophageal stricture, Barrett's esophagus and ulcer (causing GI bleeding).

Alarm symptoms and signs

The presence of the following alarm or 'red flag' symptoms should alert the managing physician to perform a more thorough investigation in GERD patients:

- Dysphagia
- Odynophagia
- Unexplained weight loss
- Unexplained loss of appetite
- Persistent vomiting
- Iron deficiency anaemia
- GI bleeding
- Abnormal physical examination (e.g. abdominal mass, lymphadenopathy)
- Family history of esophagus or gastric cancer

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Initial management

Most GERD cases can be managed effectively at primary care setting. Initial evaluation consists of taking a thorough medical history together with physical examination. In patients with classic GERD presentation and no alarm symptoms, it is reasonable to manage using a combination of medical and lifestyle strategies:

- Lifestyle : GERD patients should be counselled on dietary modifications.
  Common dietary triggers in caffeine (coffee, tea), fatty food and chocolates should be avoided initially. Patient should also be advised to not have meals 2-3 hours before sleeping and to sleep with the head of bed elevated. Eating in smaller amount during meals is also helpful. Keeping a food diary may help in identifying potential triggering dietary element.
- Weight : It is advisable for patients with high body mass index to lose weight as it is associated with higher incidence of GERD.
- Medications : Patient's drug history should be screened and medications such as NSAIDs and aspirin should be discontinued if possible.
- Proton pump inhibitors (PPIs) : Treatment with twice daily PPIs may be started with typical duration ranging from 6 to 8 weeks before reassessing for response.
- Antacids : Over the counter antacid therapy is sometimes useful as monotherapy or adjunct treatment to PPIs.

When to refer

Patients who present with GERD and alarm symptoms should be referred for further assessment. Also, patients who fail to respond to initial management should be considered for review by specialist.

Investigations available in specialist setting

Oesophagogastroduodenoscopy (OGD) : OGD is recommended in patients with alarm symptoms or those not responding to initial management approach. Presence of esophagitis, ulcers, erosions or malignancies can be picked up with a combination of endoscopic examination with or without biopsies. OGD can be performed safely with moderate sedation at day surgery setting. Tissue biopsies may be taken also during the procedure depending on findings.

pH impedance studies : This has been increasingly utilized in patients who continue to have GERD symptoms despite treatment and also a relatively unremarkable OGD examination. pH impedance involves putting in a small tube (with multiple sensors) directly from the nostril into the stomach-esophaghus junction and provides direct measurement of acid reflux, esophagus motility and to correlate these with patient's symptoms. Further information obtained can help determine if symptoms are due to reflux or non-reflux event, thus different medication or approach may be necessary to improve symptoms.

Imaging : On rare instances, imaging studies may also be requested. Gastric emptying study is useful to detect gastroparesis (slowing of gastric transit time) while CT / MRI scan is sometimes indicated in patients with alarm signs such abdominal mass during physical examination.

Surgical management for GERD patients

Lifestyle changes and medication are usually effective in managing GERD symptoms. Rarely though, patients continue to suffer from significant symptoms that interfere with daily activities, work and even sleep. Surgical (endoscopic, laparoscopic) options may be offered in these instances, such as laparoscopic fundoplication or the newer endoscopic techniquesuch as ARMS (anti-reflux mucosectomy). It is important however to optimize nonsurgical management prior to considering surgical options in GERD patients.

Conclusion

Gastroesophageal reflux disease (GERD) is a common condition in Singapore. Initial management (in patients without alarms symptom) with medications (PPI) and lifestyle modification is currently recommended. In patients who fail to respond or has red-flag symptoms, it is wise to consider other investigations such as OGD to guide further management.