



CK SURGITECH



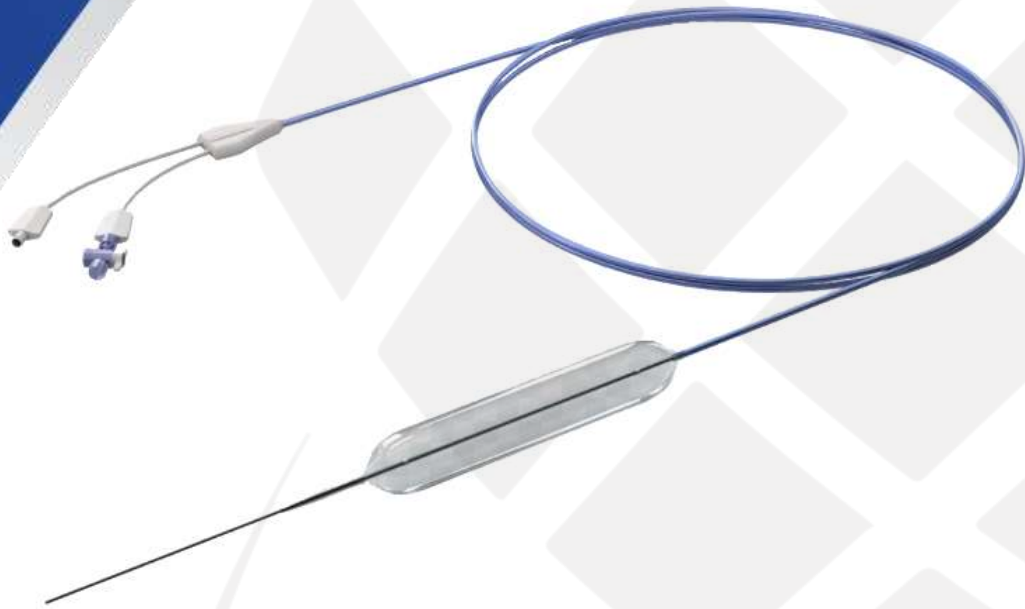
CK SURGITECH

OESOPHAGEAL DILATATION

MULTI STAGE BALLOONS
DILATORS

ACHALASIA BALLOON
DILATORS

BOUGIE DILATORS



REASONS FOR OESOPHAGEAL DILATATION

Peptic stricture

This is caused by reflux oesophagitis. With this problem, the oesophagus is irritated by acid reflux.

This occurs when acid from your stomach flows back up into the oesophagus. Stomach acid damages the lining of the oesophagus. This leads to a build-up of scar tissue. As a result, the oesophagus is narrowed. [1]

Schatzki's ring

This is an abnormal ring of tissue. It forms where the oesophagus meets the stomach. It can cause dysphagia. [1]

Achalasia

This condition stops food and liquids from moving into your stomach from the oesophagus. It affects the lower oesophageal sphincter (LOS). The LOS is a muscular ring that opens (relaxes) when you swallow. With achalasia, the LOS does not relax. This condition can also cause problems with peristalsis. This is the normal muscular action of the oesophagus that moves food into the stomach. [1]

The cause of achalasia is unknown. Researchers believe it may be linked to a virus. Recent studies show that achalasia is caused by nerve cells of the involuntary nervous system within the muscle layers of the oesophagus. They are attacked by the patient's own immune system and slowly degenerate for reasons that are not currently understood. [2]

There's no cure for achalasia. Once the oesophagus is paralyzed, the muscle cannot work properly again. But symptoms can usually be managed with endoscopy, minimally invasive therapy or surgery. [3]

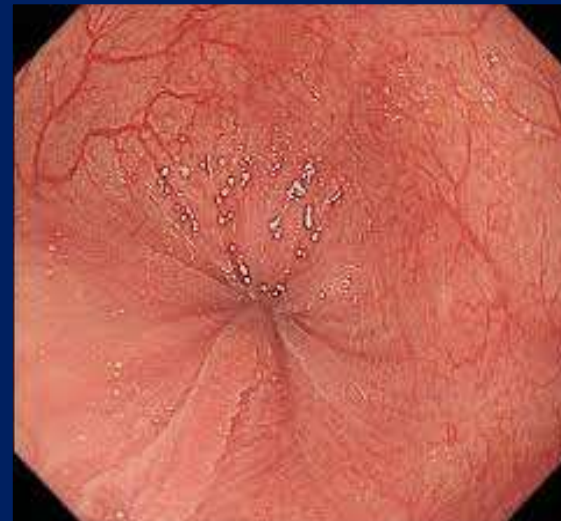
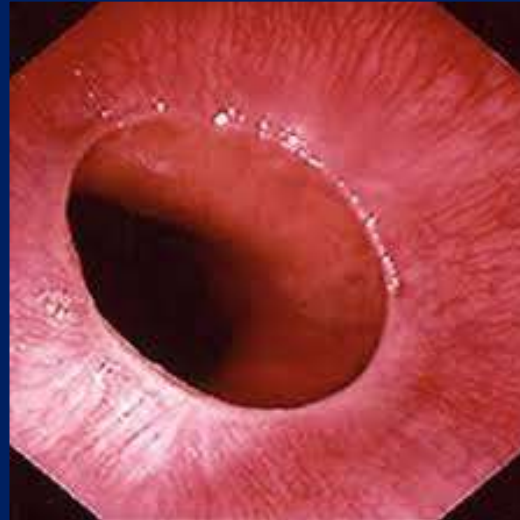
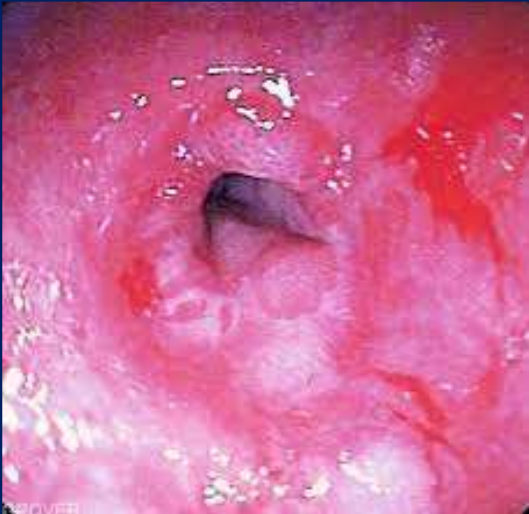
REASONS FOR OESOPHAGEAL DILATATION

Eosinophilic oesophagitis

This is a redness and swelling (inflammation) in the oesophagus. It is caused by an environmental trigger such as a food allergy. It can lead to pain, trouble swallowing, and strictures.

Other oesophageal strictures caused by radiation treatment and cancer

[1]



TYPES OF OESOPHAGEAL STRICTURES

SIMPLE STRICTURES

Simple oesophageal strictures are typically related to prolonged reflux oesophagitis (peptic strictures). They are smooth surfaced, short, straight, located in the distal oesophagus.

COMPLEX STRICTURES

Complex oesophageal strictures have one or more characteristics that require special attention during dilation and/or the use of specific dilation systems.

Examples:

Strictures that are long, narrow, or tortuous.

Strictures associated with large hiatus hernias, oesophageal diverticula or a tracheoesophageal fistula.

RISK FACTORS FOR OESOPHAGEAL STRICTURES

Alcohol use

Cancer in the neck region

Gastroesophageal reflux disease (GORD)

Hiatal hernia

Peptic ulcer disease

A history of dysphagia [4]

CAUSES OF BENIGN OESOPHAGEAL STRICTURES

Gastroesophageal reflux (GORD) – most common cause

Eosinophilic oesophagitis

Injuries caused by an endoscope

Swallowing substances that harm the lining of the oesophagus. These may include household cleaners, lye, disc batteries, or battery acid.

Treatment of oesophageal varices

Corrosive substance ingestion

Drug-induced oesophagitis

Radiation injury

Iatrogenic stricture post-endoscopic therapy

Anastomotic Stricture (oesophageal surgery can leave inflammation and scarring)

Chemotherapy-induced oesophageal stricture

Thermal Injury

Infectious Oesophagitis [4] [5] [6]

Rare causes include

Long-term use of a nasogastric tube (rare)

Crohn's disease

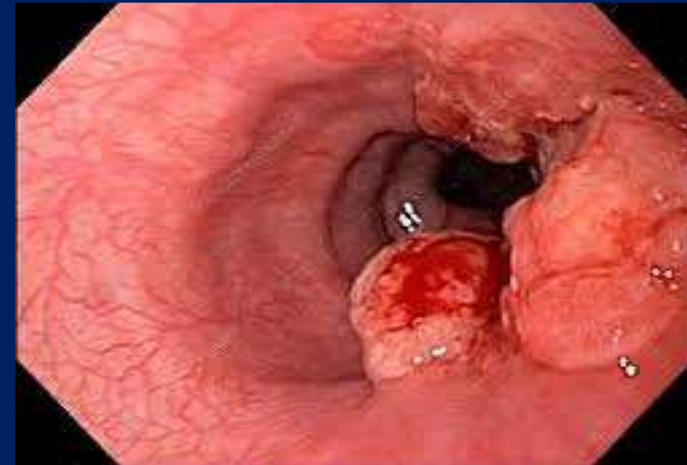
Tuberculosis [6]

CAUSES OF MALIGNANT OESOPHAGEAL STRICTURES

Oesophageal adenocarcinoma

Oesophageal squamous cell carcinoma

Metastatic oesophageal neoplasm - usually from lung cancer [6]



SYMPTOMS OF BENIGN OESOPHAGEAL STRICTURES

Difficult or painful swallowing

Unintended weight loss

Regurgitation of food or liquids

Sensation of something stuck in the chest / throat after you eat

Frequent burping or hiccups

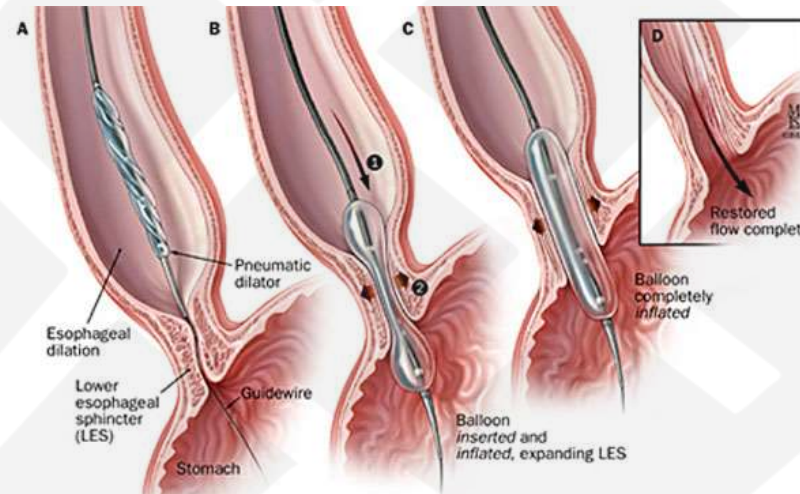
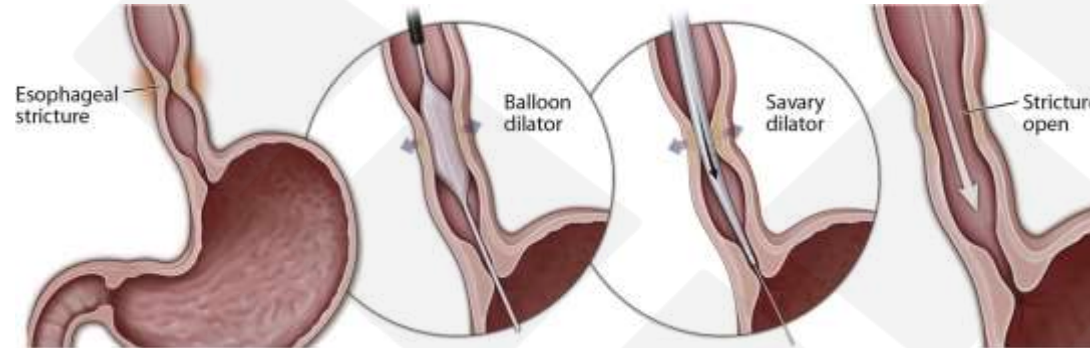
Heartburn

Frequent episodes of choking

Burning sensation in the neck or throat [4] [5]

THERAPEUTIC APPROACH TO OESOPHAGEAL STRICTURES

The approach depends upon the characteristics of the stricture and the endoscopists familiarity and experience with the equipment and procedure itself.



TYPES OF OESOPHAGEAL DILATORS

Two Main Categories

Mechanical Dilators (push type or Bougie)

Balloon Dilators – TTS and OTW

Mechanical and balloon dilators differ in how they accomplish the stretching of a stricture.

Mechanical dilators exert a longitudinal and radial force and dilate progressively from the proximal to the distal extent of the stricture.

Balloon dilators deliver the entire dilating force radially over the entire length of the stricture, significantly reducing shear stress.

NB. To avoid complications with complex strictures (long, narrow and tortuous) the use of a guide wire based system or balloon dilator is preferable.

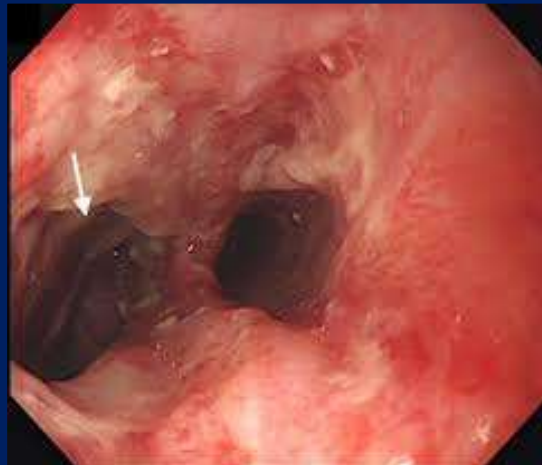
In cases of complex strictures, you run the risk of perforating the oesophagus when using push type dilators. The tip of the dilator may perforate the oesophagus instead of passing into the stomach.

COMPLICATIONS POST OESOPHAGEAL DILATATION

Perforation is the major complication of oesophageal dilatation

Infection

Risks of Anaesthesia



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