Amsterdam UMC
Universitair Medische Centra

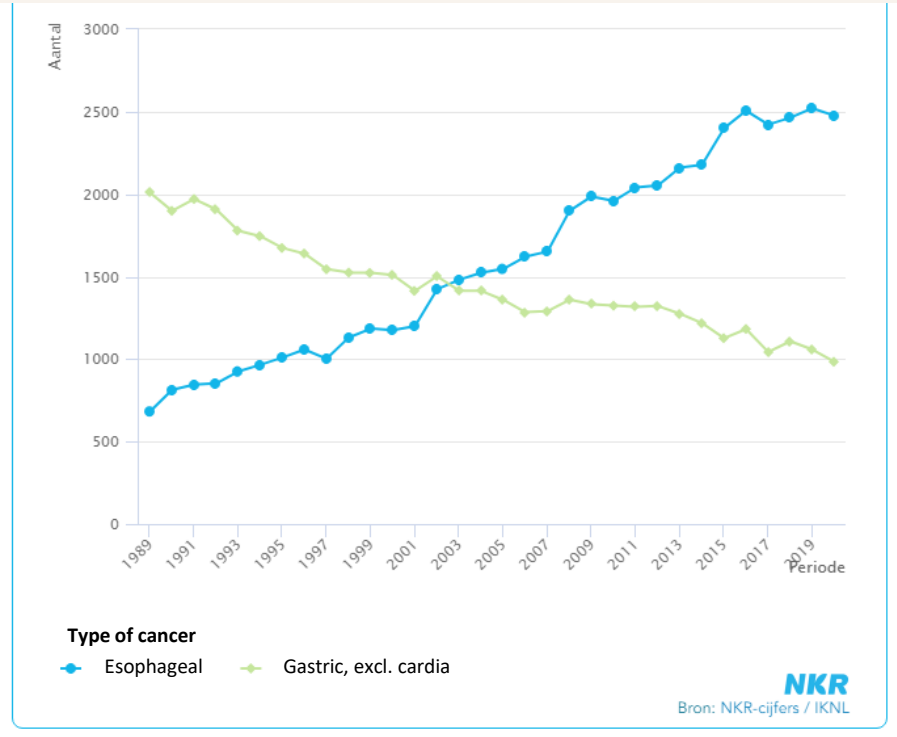
Background

Endoscopic vacuum therapy – VAC-Sponge

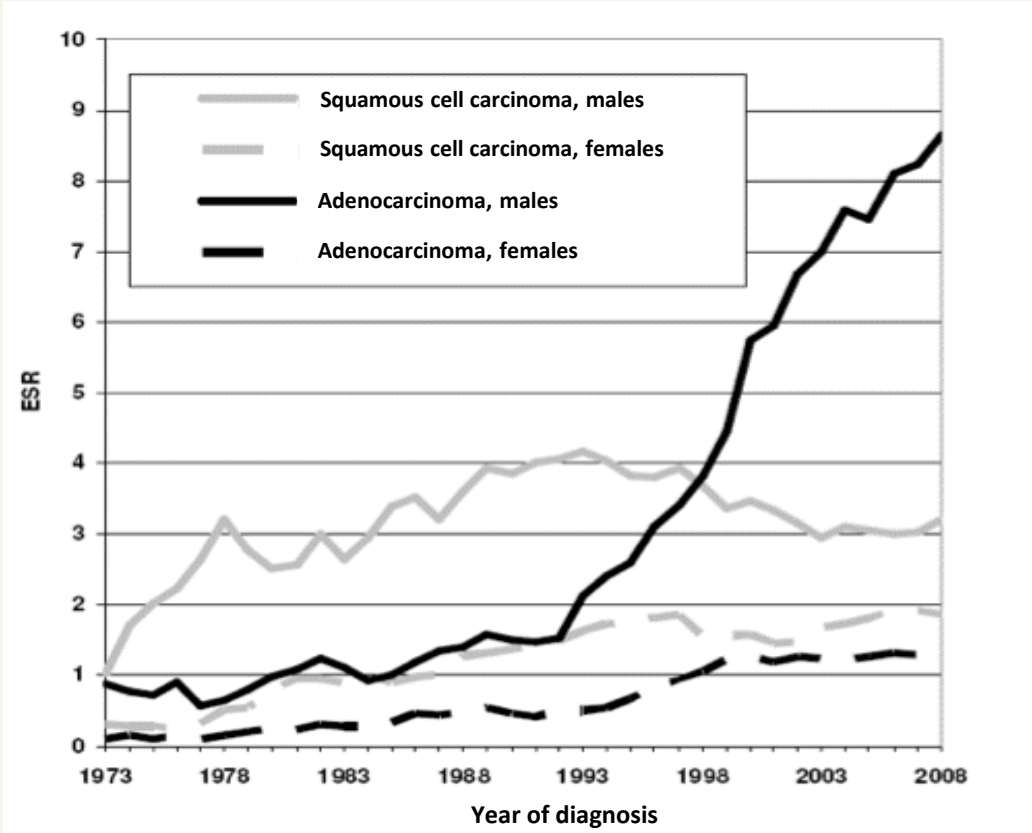
TABLE OF CONTENTS

01 Esophageal- and gastric cancer

Incidence of esophageal- and gastric cancer in NL*



Incidence of esophageal cancer in NL*



*The Netherlands

01 Esophageal- and gastric cancer

Neoadjuvant treatment (generally)

- Esophagus: neoadjuvant chemoradiotherapy (CROSS)
  - Carboplatin and paclitaxel with concurrent radiotherapy

- Stomach: perioperative chemotherapy (FLOT)
  - Fluorouracil plus leucovorin, oxaliplatin and docetaxel

Van Hagen et al. (2012) Preoperative Chemoradiotherapy for Esophageal or Junctional Cancer. NEJM.
Al-Batran et al. (2019) FLOT4: a randomised, phase 2/3 trial. Lancet.

01 Esophageal- and gastric cancer

Operations

Esophagus

Transthoracic
- Intrathoracic anastomosis (Ivor Lewis)
- Cervical anastomosis (McKeown)

Transhiatal
- Cervical anastomosis (Orringer)

Open or minimally invasive

Stomach

- Total gastrectomy and distal esophagectomy
- Total gastrectomy
- Subtotal gastrectomy

Standard in Amsterdam UMC: minimally invasive Ivor Lewis

01 Esophageal- and gastric cancer

Treatment options for anastomotic leakage

- Conservative: antibiotics, nil by mouth, nasogastric tube, drainage, etc.
- Endoscopy: stents, endosocpic vacuum therapy
- Surgery: re-do anastomosis, dismantling of the anastomosis (generally involving gastric conduit resection and construction of cervical esophagostomy)

01 Esophageal- and gastric cancer

Endoscopic stents

Pros

- Easy procedure
- No need for stent exchanges (if in adequate position)

Cons

- Risk of inadequate sealing of defect (persisting leakage)
- Stent migration in ~20%
- Additional drainage required in ~60%
- Tissue overgrowth

Dasari, B. V., et al. (2014). The role of esophageal stents in the management of esophageal anastomotic leaks and benign esophageal perforations. Annals of surgery.

02 Esophageal perforations

Esophageal perforations
- Iatrogenic (e.g. endoscopic procedures, surgery)
- Non-iatrogenic (e.g. Boerhaave syndrome, foreign body ingestion, trauma)

→

Contamination of the mediastinum often results in local inflammation and systemic sepsis

→

Severe morbidity
Mortality rates from 12-50%

› Timely and adequate treatment is vital

› Best managed by a multidisciplinary approach

Biancari et al. (2013) Current treatment and outcome of esophageal perforations in adults: systematic review and meta-analysis of 75 studies. World J Surg.
Rohatgi et al. (2009) The role of oesophageal diversion and exclusion in the management of oesophageal perforations. Int J Surg.
Gurwara et al. (2019) Esophageal Perforations: An Endoscopic Approach to Management. Curr Gastroenterol Rep.

02 Esophageal perforations

Treatment options

- Not standardized
- Depends on several factors (e.g. condition of patient, expertise of treating physician)

- Conservative: antibiotics, drainage, nil per mouth, nasogastric tube, etc.
- Endoscopy: clips, stents or endoscopic vacuum therapy
- Surgery: suturing of the defect, esophagectomy (with or without immediate reconstruction)

Persson S et al. (2017) Outcomes following the main treatment options in patients with a leaking esophagus: a systematic literature review. Dis Esophagus.
Chan et al. (2022) Current status in endoscopic management of upper gastrointestinal perforations, leaks and fistulas. Dig Endosc.
Huh et al. (2018) Treatment of benign perforations and leaks of the esophagus: factors associated with success after stent placement. Surg Endosc.
Paspatis et al. (2020) Diagnosis and management of iatrogenic endoscopic perforations: European Society of Gastrointestinal Endoscopy (ESGE) Position Statement - Update 2020. Endoscopy.