

Oesophageal Neoplasm

Oesophageal neoplasm – symptoms, diagnosis, surgical therapy

Benign tumor:

- Account for less than 1% of oesophageal neoplasms
- Most common is the benign mixed stromal cell tumor (gastrointestinal stromal tumors, or GIST, all of which used to be called leiomyoma)
- Usually asymptomatic, but may cause bleeding or dysphagia
- Best treated by local enucleation, with good results

Carcinoma of the oesophagus:

- 15/100 000, adenocarcinoma in western white and squamous cell carcinoma others
- Male to female – 3 : 1
- Risk factor – reflux, obesity, smoking, alcohol, leukoplakia, achalasia, salted fish, pickled vegetables and chewing tobacco and betel nuts
- Premalignant – achalasia, Barret's oesophagus, Plummer-Vinson syndrome, hiatus hernia and corrosive strictures

Clinical picture:

- Dysphagia- progress from solid to liquid
- Symptom to presentation takes 3-9 months, 70% non operable at the time of diagnosis
- Retrosternal pain on swallowing (odynophagia), regurgitation, and aspiration pneumonitis may present
- Metastatic form with enlarged cervical lymphnodes, jaundice, hepatomegaly, hoarseness from recurrent laryngeal involvement, and chest pain from mediastinal invasion
- Others; weight loss, anorexia, anemia and lassitude

Investigation:

- Barium swallow, later endoscopy and biopsy
- Aimed at accurate staging of the disease so as to assess resectability, determine the prognosis and identify patients who might benefit from neoadjuvant therapy
- Local T (tumor) stage and nodule (N) spread are best assessed by endoscopic ultrasonography
- M (metastasis) stage can be assessed with CXR (lung secondaries), abdominal US (liver metastasis and ascites), CT of the chest and abdomen (lung and liver metastasis, distant lymphadenopathy) and laparoscopy (peritoneal metastasis)
- Routine blood test may reveal anemia, liver disease and malnutrition
- Bronchoscopy can be valuable investigation to assess airway invasion
- If enlarged lymph nodes are detected, these should be aspirated for cytology, and surgical resection is contraindicated if they are positive for malignancy

Management: Surgical resection - Patients with disease confined to the esophagus and who are fit for surgery should be considered for resection.

Method :

1. Ivor Lewis two-phase oesophagectomy

Involves laparotomy during which the stomach is fully mobilized on its vascular pedicles, along with the lower oesophagus. A right thoracotomy is then carried out to resect the oesophagus, and the mobilized stomach is brought up into the chest and anastomosed to the proximal oesophagus

2. Left thoracolaparotomy

Approach for tumor around the oesophagus-gastric junction, particularly when the tumor extends down into the proximal stomach and a more extensive gastric resection is required

3. Transhiatal oesophagectomy –

Involves two surgeons, one operating through the abdomen and the other on the neck. Best suited to elderly patients with lower oesophageal tumor in whom a thoracotomy should be avoided if possible
A segment of colon or small bowel can be used if it is not possible to reconstruct the oesophagus with stomach for any of these three techniques.
Post operative care – nutrition by means of a feeding jejunostomy inserted at the same time as the resection

Complication

1. chest infection with pulmonary collapse and pneumothorax after thoracotomy. Adequate chest drainage, good analgesia and chest physiotherapy needed
2. anastomosis leakage in 5-10% , most common reason for perioperative mortality
3. anastomosis breakdown in the first few days after surgery represents a technical failure and usually results from ischemia in the proximal part of the mobilized stomach

early reoperation and revision of the anastomosis is the treatment of choice

leaks that occur later are well controlled by chest drains

assessment of the anastomosis is obtained by water soluble contrast swallow and/or careful endoscopy

Radiotherapy;

radical chemoradiation can be used with curative intent on both adenocarcinoma and squamous cell carcinoma in patients not suitable for surgical resection

Palliation

used for patients with extensive disease and in those who are unfit for surgery

treatment is aimed at the relief of symptoms, particularly dysphagia

1. endoscopic dilatation - may provide short term relief and must be repeated at ever-shortening intervals
2. stent insertion - using expandable metal or rigid plastic stents

main problems include perforation during insertion, migration of the tube, blockage and tumor ingrowth

3. laser ablation
4. radiotherapy and chemotherapy – intraluminal radiotherapy (brachytherapy)
5. analgesia and terminal care