Surgery for
Gastric and Oesophageal Cancer
Trends in cancer mortality, England and Wales

SMR base 1980
Oesophago-Gastric Cancer
The National Problem

- 5th commonest malignancy
- 4th commonest cause of death
- 13,500 people in 2010

- 5 year survival - oesophageal 10%
- 5 year survival - gastric 15%
Oesophago-Gastric Cancer
The Local Problem

• North Trent Cancer Network – Population 1.8m
• 30 October 2007 – 30 June 2009

• 744 cases of oesophagogastric cancer
• 155 resections (21%)

1 year survival

• Resected 77%
• Palliative oncology 34%
• Best supportive care 18%
<table>
<thead>
<tr>
<th>Symptoms</th>
<th>Physical signs</th>
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<tbody>
<tr>
<td>Dysphagia</td>
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<tr>
<td>Vomiting</td>
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<tr>
<td>GI bleed</td>
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<tr>
<td>Symptoms of anaemia</td>
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<tr>
<td>Weight loss</td>
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<tr>
<td>Dyspepsia</td>
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<tr>
<td>Reflux</td>
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Epidemiology

• Marked increase in the incidence of lower 1/3 oesophageal and G-O junction adenocarcinoma in last 20 years

• Corresponding decrease in the incidence in distal gastric cancer and squamous cell cancer of the oesophagus.
Oesophageal Cancer

Aetiology

- Smoking
- Alcohol
- G-O reflux
- Barrett’s oesophagus
Why?

OBESITY
It's An Ever-Expanding Problem.
Medically fit
No metastases
Resectable → Operate

Medically unfit
Metastases → Palliate
Unresectable
Restore Swallowing
Surgical Approaches

- Thoraco abdominal
- Left thoracic
- Right thoracic (Ivor-Lewis)
- McKeown (3-Stage)
- Transhiatal
Oesophageal Replacement

- Stomach (+/- pyloroplasty)
- Jejunum
- Colon (which segment ?)
- Which route ?
R. arm

Nipple

Interior angle of scapula

Point midway between middle of medial border of scapula and the vertebral column

Pectoralis major

Serratus anterior

Latissimus dorsi

Trapezius and rhomboids
MRC trial OEO2

Resectable Oesophageal Carcinoma SCC / ACA

- Randomised

Chemotherapy + Surgery (CS)  n=400

Surgery alone (S)  n=402
Kaplan-Meier curve showing survival from date of randomisation

OE 02 Trial

\[ p = 0.004 \]
Oesophageal Carcinoma

Conclusions

• Incidence is increasing
• Selection of patients for surgery has improved
• Peri operative mortality rate has fallen
• Expandable metal stents have improved palliative treatment for unresectable carcinomas
• Use of neoadjuvant treatments may improve survival rates
• Long term outcome for patients with oesophageal carcinoma remains dismal
CDH1 Family Tree

Familial Diffuse Gastric Cancer

† 39  39  37  36

† 48

† 48
Aetiology of Gastric Cancer
Napoleon Bonaparte  1769-1821

Diet:  Full of salt preserved foods, very little fruit & vegetables – common foods for long military campaigns

Genetic:  father died of stomach cancer

H.Pylori:  Chronic H.Pylori infection

Pre cancerous changes: CAG
Gastric Cancer : Problems

- Late diagnosis
- Few curative resections
- Low 5 year survival
- High operative mortality
- Little specialisation
LAPAROSCOPY

- Peritoneal metastases
- Direct invasion of other organs
- Avoids open / close laparotomy
- Better surgical planning
- Anaesthetic assessment
DISTAL TUMOURS

• Stenosis

  » Surgery

• Bleeding
Gastric Resections

Roux-en-Y
Lymphadenectomy
MAGIC Trial

- UK MRC Adjuvant Gastric Infusional Chemotherapy

- E  epirubicin  3 cycles  pre op

- C  cisplatin  3 cycles post op

- F  5-FU
MAGIC Trial

1994 - 2000

503 patients

Chemo & surgery 250

Surgery 253
## MAGIC Trial

### Disease free survival

<table>
<thead>
<tr>
<th></th>
<th>Chemo-Surgery-Chemo</th>
<th>Surgery</th>
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<tbody>
<tr>
<td>2 years</td>
<td>48%</td>
<td>40%</td>
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<tr>
<td>5 years</td>
<td>36%</td>
<td>23%</td>
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Gastric Cancer - Conclusions

- Incidence decreasing
- Pre-operative chemotherapy improves survival
- Better surgical results in specialist units
- Early diagnosis essential
Complications!
Pulmonary Complications

- Pain and atelectasis
- Impaired movement of diaphragm
- Extensive lymphadenectomy resulting in a form of acute pulmonary oedema
- Post chemotherapy/ irradiation bronchiolitis
Management

- Thoracic epidural combined with morphine PCA
- Early extubation or overnight ventilation?
- CPAP or not?
- Fluid restrict?
Anastomotic leak

- Early < 72 hours - technical. Re-exploration and repair
- Late > 1 week reflects local ischaemia +/or tension in anastomotic site. Manage conservatively.
Prevention of complications

- Pain control
- Respiratory care and physio and nebulisers
- Fluid balance
- Inotropes versus vasoconstrictors
- Nutrition with feeding jejunostomy
- ? Manage on HDU or ITU
Oesophageal Carcinoma
Oesophageal Carcinoma
Oesophageal Carcinoma
He's really the gardener but he can turn his hand to most things.
"This shouldn't take too long!"