

RESULTS OF ANTI-REFLUX SURGERY

Barrett's esophagus: squamous to columnar metaplasia

- Goals of management of Barrett's
 - Prevent development of metaplasia by stopping reflux early in disease
 - Promote or induce healing or regression of metaplastic epithelium such that the cancer risk mucosal damage is eliminated
 - Induce quiescence of the intestinalized metaplastic epithelium and halt its progression to metaplasia and cancer

Review paper: 25 published articles from 1980 – 2003

- 1021 patients submitted to antireflux procedure
- procedures most utilized
 - Nissen fundoplication (most commonly used)
 - Belsey Mark IV
 - Posterior gastropexy with calibration of the cardia
 - Collis – Nissen
 - Collis – Belsey
- mean follow up 47 months
 - clinical success (control of symptoms) was 81% when follow-up was < 60 months, but 66% when follow-up was > 60 months
 - follow-up was too short in most studies
 - success deteriorated with time
- Prevention or elimination of development of complications after surgery
 - erosive esophagitis, stricture, or peptic ulcer in those who did not have these complications pre-operatively
 - stricture present in 15 – 20% of patients
 - peptic ulcer present in 14 – 30% of patients
 - erosive esophagitis in 15 – 62%
- Prevention of extension or increase in length of intestinal metaplasia
 - 15 reports clearly noted that no change in length of columnar lined mucosa in distal esophagus
 - one article mentioned partial progression of columnar lined epithelium in 9 of 56 patients (16%)
- Inducing regression of intestinal metaplasia
 - 8 reports that noted regression in some patients (although 7 reports had follow-up < 60 months)
 - total 246 patients evaluated: regression or loss of intestinal metaplasia to the cardiac mucosa in 34 (13.8%)

- Preventing progression to dysplasia
 - Dysplasia appeared in 41 of 590 (6.9%) who underwent surgery

- Regression of low grade dysplasia to non-dysplastic mucosa
 - 6 papers reported loss of dysplasia
 - 1 of 5 (Skinner et al)
 - 4 of 10 (McEntee et al)
 - 4 of 7 (Low et al)
 - 7 of 16 (DeMeester)
 - 2 (Marbilla et al)
 - 5 (Parilla et al)
 - total of 18 of 40 patients (45%) had loss of low grade dysplasia after surgery

- Preventing development of adenocarcinoma
 - 13 papers did not mention development of adenocarcinoma
 - mean follow-up < 60 months in all these series' (399 patients with mean follow-up of 37 months)
 - 11 papers had mean follow-up > 60 months (652 patients)
 - 23 (3.5%) developed adenocarcinoma
 - 11 of the 23 developed cancer in 5 years or less after surgery
 - 12 of the 23 developed cancer in 6 years or more after surgery
 - five reports commented on whether patients were symptomatic
 - 13 patients total with 6 asymptomatic and 7 symptomatic

Harshpal Singh, M.D.
March 31, 2005