

SCANNING THE LITERATURE

Timothy Riddell, MD

Ochsner Clinic Foundation, Mandeville, LA

What is Truly the Cost of a Pound of Flesh?

Melinek J, Livingston E, Cortina G, et al. Autopsy findings following gastric bypass surgery for morbid obesity. *Arch Pathol Lab Med* 2002;126:1091-1095.

Background: Roux-en-Y gastric bypass, currently the most frequently performed surgical procedure for morbid obesity, has a low but significant mortality rate. There are limited data documenting the findings at necropsy in patients who have died following this procedure. **Objective:** To determine cause of death and pathologic processes present in obese subjects dying after gastric bypass surgery. **Patients:** We studied 10 patients who underwent autopsy following gastric bypass surgery for morbid obesity between the years 1994 and 2000. **Results:** There were 6 men and 4 women. The mean age of the patients was 48 years (range, 28-62 years). The mean preoperative weight was 162 kg (range, 112-245 kg), and the mean body mass index was 54 kg/m² (range, 39-76 kg/m²), similar to all patients undergoing gastric bypass at our institution during the same period. Five deaths were directly attributable to technical complications. Five deaths were attributed to underlying comorbid conditions. One patient died of cirrhosis and one of pulmonary hemorrhage. Three patients died from pulmonary embolism. However, 8 of 10 patients had microscopic evidence of pulmonary emboli, despite prophylaxis for deep vein thrombosis. Most patients had some degree of steatohepatitis and hepatic fibrosis (80% and 70%, respectively). There were no deaths from primary cardiac events. **Conclusions:** In patients who die after Roux-en-Y gastric bypass, half die due to technical complications, whereas the other half die of complications of their obesity. Clinically, only 20% of patients were suspected to have pulmonary emboli, yet at autopsy, 80% of patients had pulmonary emboli. In morbidly obese patients undergoing Roux-en-Y gastric bypass, there is an unexpectedly high rate of clinically silent pulmonary emboli contributing to morbidity and mortality.

Comments: With the increasing prevalence of obesity (up to 40% of American adults are obese), gastric banding and gastric bypass surgeries have recently been receiving greater attention in the lay media. Celebrities such as Al Roker, Carney Wilson, and New Orleans' own Jefferson Parish Sheriff Harry Lee have undergone such surgeries. With the poor success of behavioral modifications, these surgeries are becoming more popular. This study is a

reminder of the dangers of weight loss surgery. With a 1 in 200 death rate, the procedure is not to be taken lightly. One school of thought suggests that this surgery should be performed only on those with the most severe sequelae of obesity: diabetes mellitus, hypertension, high output heart failure, sleep apnea, vascular disease, and arthritis. However, there is a growing consideration that these surgeries be performed before the development of metabolic illnesses that can lead to surgical complications. Unfortunately, by showing that half the deaths were due to technical complications and the other half due to comorbid conditions, this study does not give clear evidence for either approach.

To Scope or Not to Scope...

Walsh JM, Posner SF, Perez-Stable EJ. Colon cancer screening in the ambulatory setting. *Prev Med* 2002; 35:209-218.

Background: Despite evidence of decreased mortality, recommendations for colon cancer screening have not been widely implemented by physicians. The objective of this study was to determine patient and clinician factors associated with screening for colon cancer.

Methods: A retrospective review of computerized medical records from primary care practices in an academic medical center was performed. Patients comprised men and women aged 50-74 with at least one visit between July 1, 1995 and June 30, 1997. Measurements included fecal occult blood testing in the past 1 or 2 years, sigmoidoscopy in the previous 5 or 10 years, or colonoscopy in the past 10 years.

Results: A total of 6,039 patients were included in the analysis. Fecal occult blood testing had been performed in 44% of patients and sigmoidoscopy in 26%. Fifty-three percent of patients had undergone some type of colon cancer screening. In multivariate analysis, patient factors predictive of fecal occult blood testing included age (odds ratio (OR) per 5 years 1.05; 95% confidence interval 1.04, 1.06), Asian ethnicity (OR 1.23; 1.08, 1.41), number of visits during the study period (OR 1.05; 1.04, 1.06), recency of the last visit (OR 1.03; 1.02, 1.04), and having private insurance (OR 1.65; 1.04, 2.62).

Predictors of sigmoidoscopy were similar except that patients with a family history of colon cancer and those with managed care insurance were also more likely to undergo sigmoidoscopy. Patients of nurse practitioners were less likely to receive fecal occult blood testing than were patients of physicians (OR 0.78; 0.65, 0.93).

Patients of residents were less likely to undergo sigmoidoscopy than were patients of faculty (OR 0.79; 0.66, 0.94). **Conclusions:** Among patients seen in primary care practices, rates of colon cancer screening remain low, especially in patients who are younger, who have been seen less frequently, who are uninsured, or who do not have managed care insurance. Future research should explore these differences and should focus on increasing screening in all patient groups, especially in those who are underscreened.

Comments: Colon cancer is the second most common cause of cancer death in the United States: screening programs are paramount. Despite physician education and media awareness, screening continues to be underutilized. The many reasons for this include limited availability (though hemoccults are easily attainable, sigmoidoscopy and colonoscopy are still not universally available), patient trepidation, and cost. Of note is that young patients who seldom see a physician and lack adequate insurance coverage frequently are unscreened. Further efforts to educate the public and ensure reimbursement should pay off in reduced colorectal cancer deaths.

Lest We Forget

Desmond DW, Moroney JT, Sano M, et al. Incidence of dementia after ischemic stroke: results of a longitudinal study. *Stroke* 2002; 33:2254-2260.

Background and Purpose: A number of cross-sectional epidemiological studies have reported that one fourth of elderly patients meet criteria for dementia 3 months after ischemic stroke, but few longitudinal studies of the incidence of dementia after stroke have been performed. We conducted the present study to investigate the incidence and clinical predictors of dementia after ischemic stroke. **Methods:** We administered neurological, neuropsychological, and functional assessments annually to 334 ischemic stroke patients (age, 70.4+/-7.5 years) and 241 stroke-free control subjects (age, 70.6+/-6.5 years), all of whom were nondemented in baseline examinations. We diagnosed incident dementia using modified Diagnostic and Statistical Manual of Mental Disorders, Revised Third Edition criteria requiring deficits in memory and > or =2 additional cognitive domains, as well as functional impairment.

Results: The crude incidence rate of dementia was 8.49 cases per 100 person-years in the stroke cohort and 1.37 cases per 100 person-years in the control cohort. A Cox proportional-hazards analysis found that the relative risk (RR) of incident dementia associated with stroke was 3.83 (95% CI, 2.14 to 6.84), adjusting for demographic variables and baseline Mini-Mental State Examination score. Within the stroke cohort, intercurrent medical illnesses associated with cerebral hypoxia or ischemia were independently related to incident dementia (RR, 4.40; 95% CI, 2.20 to 8.85), adjusting for recurrent stroke, demographic variables, and baseline Mini-Mental State Examination score. **Conclusions:** The risk of incident dementia is high among patients with ischemic stroke, particularly in association with intercurrent medical illnesses that might cause cerebral hypoxia or ischemia, suggesting that cerebral hypoperfusion may serve as a basis for some cases of dementia after stroke.

Comments: A stroke is a devastating blow to any patient. The loss of function and independence are well documented. The development of dementia following ischemic strokes has been postulated for some time, and studies such as this demonstrate that risk clearly. Unfortunately, there is no clear evidence of how to prevent this long-term complication. Elimination or prevention of illnesses that can lead to cerebral hypoperfusion, such as treatment of atherosclerosis (using anti-hyperlipidemics, antihypertensives, and reperfusion procedures) may help, and the prevention of cerebral infarctions continues to be a national priority.

Stop Smoking, Stop Smoking, Stop Smoking !!!!

Mannino DM, Homa DM, Redd SC. Involuntary smoking and asthma severity in children: Data from the Third National Health and Nutrition Examination Survey. *Chest* 2002; 122:409-415.

Study Objectives: We sought to determine the indicators of asthma severity among children in the United States with high and low levels of tobacco smoke exposure.

Design: Cross-sectional study. **Setting:** Nationally representative survey of participants in the Third National Health and Nutrition Examination Survey (from 1988 to 1994). **Participants:** Five hundred twenty-three children with physician-diagnosed asthma. **Measurements and**

Results: We stratified the study participants into tertiles on the basis of serum levels of cotinine (a metabolite of nicotine that indicates tobacco smoke exposure).

We used logistic and linear regression modeling, adjusting for known covariates, to determine the effect of high environmental tobacco smoke exposure on the following outcomes: asthma severity (determined using reported symptom and respiratory illness frequency); lung function; physician visits; and school absence.

Among our study sample, 78.6% of children had mild asthma, 6.8% of children had moderate asthma, and 14.6% of children had severe asthma. Asthmatic children with high levels of smoke exposure, compared with those with low levels of exposure, were more likely to have moderate or severe asthma (odds ratio, 2.7 95% confidence interval [CI], 1.1 to 6.8) and decreased lung function, with a mean FEV(1) decrement of 213 mL or 8.1% (95% CI, -14.7 to -3.5). **Conclusions:** Involuntary smoke exposure is associated with increased asthma severity and worsened lung function in a nationally representative group of US children with asthma.

Comments: In order to quit smoking, many people require multiple motivational factors. Often, the health of an individual may seem unimportant as a force to lead to smoking cessation. However, the health of one's children is a strong motivating tool. This study clearly demonstrates the effect of secondhand tobacco exposure on asthma severity. The children of smokers directly benefit from the modification of their parents' smoking habits. This fact gives physicians more ammunition to help patients quit and highlights the need to continue to try.