New York Surgical Society, Inc. Conjoint Meeting with the Philadelphia Academy of Surgery

Wednesday, April 6, 2011; Presentations: 2:00 p.m. – 5:00 p.m.

Weill Cornell Medical College, Uris Auditorium
1300 York Avenue at 68th Street

Reception and Dinner to Follow at the Griffis Faculty Club
(Business Attire)

"Marginal Ulcers Following Laparoscopic Gastric Bypass: A Detailed Analysis of 613 Consecutive Patients"
Authors: Piotr Gorecki, M.D., Gopi Maharaja, M.A., Ziad Fayad, M.D., Anthony Tortolani, M.D., Won Sohn, M.D.;
Department of Surgery, New York Methodist Hospital

Discussant: Fernando Bonanni, M.D.

"Circumferential Resection Margin Involvement After Laparoscopic Abdominoperineal Resection for Rectal Cancer"
Authors: Albert Kwon, M.D., Roberto Bergamaschi, M.D., PhD
ivision of Colon & Rectal Surgery, SUNY Stony Brook

Discussant: Scott Goldstein, M.D.

"Total Thyroidectomy for Multifocal Micropapillary Thyroid Cancer : Is it a Safe and Efficient Approach?"
Authors: A.E. Alfonso, M.D., FACS, J.A. Ricci,M.D.
Downstate Medical Center/Long Island College Hospital

Discussant: Christopher Pezzi, M.D.

"Metabolic Profiling Detects Field Effects in Non-dysplastic Tissue From Esophageal Cancer Patients"
Author: Danny Yakoub, M.D., PhD, MRCS
Department of Surgery, Staten Island University Hospital

Discussant: Thomas Bauer, M.D.

"PE Without DVT"
Authors: Timothy Schwartz, D.O., Anil Hingorani, M.D., Enrico Ascher, M.D., Alexander Shiferson, D.O., Natalie Marks, M.D., Daniel Jung, D.O., Robert Jimenez, M.D., Theresa Jacob, PhD
Department of Vascular Surgery, Maimonides Medical Center

Discussant: James Alexander, M.D.

"Single-incision Laparoscopic Surgery: Experience With 151 Consecutive Cases"
Authors: Eugene Rubach, M.D., FACS, Joanne McDevitt, RPA-C, Gary Gecelter, M.D., FACS
St. Francis Hospital, Roslyn

Discussant: Paul Curcillo, M.D.

Marginal Ulcers Following Laparoscopic Gastric Bypass: A Detailed Analysis Of 613 Consecutive Patients

Piotr Gorecki MD, Gopi K Maharaja MA, Ziad Fayad MD, Anthony Tortolani MD, Won Sohn MD

Department of Surgery, New York Methodist Hospital

Background: Marginal ulceration (MU) following gastric bypass has been reported in 0.6 to 16% of patients. Symptoms include abdominal pain, nausea, vomiting, and food intolerance. Perforation and bleeding represent rare, but life threatening complications of MU. We are reporting on the risk factors and prevalence of MU in morbidly obese patients who underwent laparoscopic gastric bypass.

Methods: 613 consecutive patients who underwent laparoscopic gastric bypass between August 2001 and August 2010 were studied. All patients were operated by a single surgeon (PG). All patients underwent preoperative upper endoscopy (EGD) with biopsy to investigate for the presence of H pylori and if present were treated preoperatively. All patients with postoperative food intolerance or upper abdominal pain were evaluated by repeat EGD. All data were collected prospectively.

Results: MUs were found in 67 patients (10.93%). Three patients required operative intervention (1 emergent and 2 elective). The remaining patients were treated nonoperatively with antisecretory therapy and carafate. Significant risk factors for MU were NSAIDS ingestion (odds ratio 26.24, p=0.0001,n=48), narcotic analgesics abuse (odds ratio 13.03, p = 0.001, n=2) and current smokers (odds ratio 4.85, p=0.0001, n=31). Preoperative diagnosis of esophagitis, hiatal hernia and H. Pylori were insignificant variables. Patient demographics including age, race, insurance status and initial BMI were also non significant factors.

Conclusion: MU represents a significant late complication of laparoscopic gastric bypass. Most important risk factors for postoperative MU are NSAIDS, narcotic analgesics abuse and smoking. Avoiding these risk factors are critical as both prophylactic and therapeutic measures.

Circumferential Resection Margin Involvement after Laparoscopic Abdominoperineal Resection for Rectal Cancer

Albert Kwon, MD, Roberto Bergamaschi, MD, PhD

State University of New York, Stony Brook, Division of Colon & Rectal Surgery

Aim: This study aims to evaluate circumferential resection margin (CRM) involvement in patients with rectal adenocarcinoma after laparoscopic abdominoperineal resection (APR).

Methods: Prospectively collected data were analyzed on consecutive patients who underwent laparoscopic APR for histologically proven rectal cancer following neoadjuvant chemotherapy from 1998 to 2006. Patients with no sphincter involvement were not included and underwent intersphincteric resection with coloanal anastomosis. CRM involvement was defined as ≤ 2 mm at standardized pathology protocol. Data were presented as mean ± standard deviation (SD) or median (range).

Results: 74 patients underwent laparoscopic APR. Age was 60 ± 14. BMI was 29.7 ± 7.9. Tumor distance from anal verge was 3.1 ± 0.93 cm. All patients had sphincter involvement. Operative time was 180 ± 73 min, and estimated blood loss was 269 ± 149 ml. There were no conversions. There was no postoperative mortality. The adverse event rate was 11%. There were two re-operations and three re-admissions. 71 patients had T3 tumors, and 3 patients had T4 tumors. Tumor size was 3.1 (0-10) x 3 (0-8.5) x 2 (0-3.6) cm, and 26 (3-41) lymph nodes were harvested. CRM measured 7 (1-11) mm. CRM involvement was localized at the waist of the specimen in 12 (16.2%) patients. 92% and 97% of patients with involved and uninvolved CRM underwent adjuvant therapy. At 50 ± 27 month follow-up of 73 patients, 12 patients with CRM involvement had significantly decreased cancer-specific survival (log rank test, p=0.002).

Conclusion: Laparoscopic APR resulted in a 16.2% CRM involvement in patients with rectal cancer.

Total Thyroidectomy for multifocal micropapillary thyroid cancer: Is it a safe and efficient approach?

Authors: A.E. Alfonso MD, FACS and J. A. Ricci MD, Department of Surgery, SUNY Downstate Medical Center/Long Island College Hospital

Background: While conservative resection diminishes the incidence of permanent hypocalcemia and recurrent laryngeal nerve injury, others have demonstrated decreased local recurrence and increased overall survival with total thyroidectomies applied to small well-differentiated papillary thyroid cancers (WDPTC).

Methods: Clinical records of 516 consecutive surgically treated thyroid cancer patients were reviewed. A subset of 269 cases with WDPTC confined within the capsule of the involved single lobe subjected to total thyroidectomy was analyzed. The patients were stratified by age (< 45 years and ≥ 45 years), tumor size ($<$ 1cm, 1 to 1.9 cm, 2 to 4 cm, and $>$ 4 cm), evidence of ipsilateral multifocality, and presence or absence of contralateral non-palpable malignancy.

Results: Overall contralateral histologic malignancy on routine serial sections was demonstrated in 46.4% (125/269) of patients and in 34% (30/88) of patients with sub-centimeter ($<$ 1 cm) tumors. This significantly increased to 52% (95/181) in tumors $\geq$ 1cm ($p = 0.006$), and approached 76% (13/17) in those ≥ 45 years with sub-centimeter but multifocal tumors. Only one patient developed permanent hypocalcemia (0.4%) and there were no recurrent laryngeal nerve injuries.

Conclusion: The incidence of bilateral histologic multicentricity was significant even in groups with small WDPTC. Patients ≥ 45 years of age that present with sub-centimeter multifocality are at a higher risk for bilateral disease. While total thyroidectomy is advocated for patients with WDPTC $\geq$ 1 cm in size, it should also be seriously considered in those over 45 years with multifocal sub-centimeter tumors, since it is a safe operation.

"Metabolic Profiling Detects Field Effects in Non-Dysplastic Tissue From Esophageal Cancer Patients"

Author: Danny Yakoub, M.D., PhD, MRCS

Department of Surgery, Staten Island University Hospital, NY

Work started at Imperial College London, U.K.; completed at Staten Island University Hospital.

Abstract:

Background: The variable rate of missed cancer in endoscopic biopsies and lack of other biomarkers reduce the effectiveness of surveillance programs for esophageal cancer. Based on the "field cancerization" hypothesis we sought to test if metabolic profiling could differentiate between histologically-normal tissue from individuals with an without esophageal cancer.

Patients and methods: Thirty-five patients with esophageal adenocarcinoma and 52 age-matched controls were studied. Using ^{1}H magic angle spinning – nuclear magnetic resonance spectroscopy of intact tissue, we generated metabolic profiles from tumor tissue, proximal histologically normal mucosa from cancer patients (PHINOM) and equivalent histologically normal mucosa from the control group. Using multivariate regression and receiver-operator characteristic analysis we identified a panel of metabolites discriminating malignant and histologically-normal tissues from cancer patients from that of controls.

Results: While 26% and 12% of the specific profile regions were uniquely discriminating tumor or control tissue respectively, 5% of the profile exhibited a significant progressive change in signal intensity from controls to PHINOM to tumor. Regions identified were assigned to phosphocholine, glutamite, myo-inositol, adenosine-containing compounds, uridine-containing compounds and inosine. In particular, the phosphocholine to glutamate ration in histologically-normal tissue signified the presence of esophageal cancer (n=123, AUC 0.84, $p<0.001$).

Conclusions: Our findings support the hypothesis of the presence of metabonomic field effects in patients with esophageal cancer. Thus, metabolic profiling of biopsy specimens can potentially play a role on the surveillance for cancer by identifying the phenotypic patterns associated with field cancerization.

PE without DVT

Objectives

Classic teaching suggests pulmonary embolism to be a consequence of deep venous thrombosis (DVT). However, we have noted a subset of patients with pulmonary embolism (PE) documented by dedicated computed tomography scan (CT) of the chest to have no identifiable source on lower extremity venous duplex (LED) and upper extremity venous duplex (UED) studies. The aim of this study is to characterize and compare those patients with and without an identifiable source of PE in terms of age, gender, malignancy, trauma and critical illness.

Methods

We reviewed approximately 2700 CT with PE protocol from our radiology database and identified patients with PE on CT performed from January, 2008 to September, 2010. We then reviewed their venous duplex studies, our computer databases, the cancer registry and their electronic discharge summaries.

Results

We identified 152 women and 78 men (mean age 68) with PE.131 patients had a documented source of PE(Group 1), three of which had a positive UED and a negative LED. 53 patients had negative LED but did not have UED(Group 2).31 patients had neither LED nor UED performed at our institution(Group 3). 7 men and 8 women had no documented source of PE on UED and LED (Group 4). 10 out of 15 patients in Group 4 had a documented malignancy listed as one of their diagnoses. We then reviewed the discharge summaries of patients in the other 3 groups. 84 out of 215 had a documented malignancy listed as one of their diagnoses.

	Total patients	Mean age	Any history of Cancer	Cancer present at time of PE	Prevalence of active cancer
Group 1	131	18-96, mean 71.2	52	32	24%
Group 2	53	23-95, Mean 67.7	20	9	17%
Group 3	31	50-91, Mean 65.7	12	9	29%
Group 4	15	41-92, Mean 68	10	7	47%

There was no statistical significance of age and gender distribution, critical illness and trauma among four groups.

Group 4 had a statistically significant increased prevalence of active malignancy when compared to the rest of the patients, 47% vs 23% (p 0.043), as well as higher percentage of any history of cancer, 67% vs. 39% (p 0.036).

Conclusion

We have demonstrated a statistically significant increased prevalence of malignancy in patients with PE without an identifiable source. While the pathophysiology of this disease entity is still to be determined, we can infer from our analysis that the presence of PE

without DVT can serve as a marker for malignancy and should prompt an active search for it.

Authors: Tim Schwartz, D.O., Anil Hingorani, M.D., Enrico Ascher, M.D., Alexander Shiferson, D.O., Natalie Marks, M.D., RVT, Daniel Jung, D.O., Robert Jimenez, M.D., Theresa Jacob, PhD.

Maimonides Medical Center, Brooklyn, New York

TITLE: Single-Incision Laparoscopic Surgery: Experience With 151 Consecutive Cases.

AUTHORS: Eugene Rubach, MD, FACS, Joanne McDevitt, RPA-C, Gary R. Gecelter, MD, FACS

HOSPITAL AFFILIATION: St. Francis Hospital, Roslyn, NY

OBJECTIVE: To describe our experience with 151 consecutive patients undergoing single-incision laparoscopic surgery (SILS).

DESIGN: Retrospective review of prospectively collected perioperative data

OUTCOMES REPORTED: Case mix, conversion rate, indications for surgery, need for additional ports, operative times, morbidity and mortality.

RESULTS: 151 patients underwent 172 procedures over a 30 month period. Median follow-up was 14 months with the range of 1-32 months. Average age was 43 (range 16-83) years old. Conversions to multi-port laparoscopic surgery were required in 10 patients (7%), but only in 2 of the last 50 patients (4%). 120 patients (79%) had elective surgery, 31 patients (21%) underwent urgent/emergent procedures. Operations performed included SILS cholecystectomy, SILS appendectomy, SILS colectomy, SILS gastrectomy and several others. There were no conversions to open surgery. There were no mortalities. 15 complications occurred in 13 patients (9%). Incisional hernias at the umbilicus developed in 3 patients (2%) at an average of 4 months postoperatively.

CONCLUSIONS: Single-incision laparoscopic surgery is a feasible surgical technique that can be safely applied to a variety of basic and advanced laparoscopic operations.