Comparing Polyp And Cancer Detection Rate Between Asymptomatic Patients With A Positive Family History Of Colon Cancer Or Polyps And Asymptomatic Patients Of A Similar Age Range Who Have Average Risk Of Colon Cancer

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Aim of Study
To compare the polyp, adenoma, advanced adenoma, and cancer detection rates on initial screening colonoscopy between patients with a positive family history of colon cancer or adenomas and patients without a similar family history.

Method I
• Patients age range of 50-65 at the time of their initial screening colonoscopy
• Patients were asymptomatic, no IBD, and no defined genetic disease that predisposes them for colon cancer.
• Only patients with complete colonoscopy to cecum and fair to excellent bowel prep were included.
• We considered patients with any first or second-degree relative with a history of colon cancer or colon polyps as having positive family history.

Results I
• Our data includes a total of 39 female patients without family history and 21 male patients with a family history in the 56-60 age group.

Results II
• The 56-60 age group with family history had polyps (26.83%):
  • 4 had adenomas (16.00%)
  • 1 had advanced adenomas (4.00%)
  • 9 had adenomas (32.14%)
  • 3 had advanced adenomas (10.71%)
  When sex was analyzed separately, we noticed similar increases in polyp detection rates in the positive family history patients when comparing populations, but the 56-60 age group again showed the largest discrepancies.

Results III
• We included a total of 43 male patients without family history and 7 with a family history in the 56-60 age range.
• In the 56-60 age group, there was a total of 82 patients without family history and 28 patients with family history.
• 11 male patients without a family history had polyps (25.58%):
  • 7 had adenomas (16.28%)
  • 1 had advanced adenomas (2.44%)
  • 3 had adenomas (6.98%)
  • 2 with advanced adenomas (8.57%)
• 3 had advanced adenomas (10.71%)
  • 2 with advanced adenomas (8.57%)

Method II
• We grouped patients with positive family history and no family history into three age categories (50-55, 56-60, 61-65).
• The recorded sex, race, bowel prep (fair, adequate, good, excellent), polyps (yes or no), number of polyps, size of largest polyp, history of end polyps, polyp location (left or right colon), and withdrawal time (table I).
• A total of 283 patients without family history and 119 patients with a positive family history were included in our results.
• Advanced polyps were defined as tubular or serrated adenoma that was greater than or equal to 1 cm, if it had a villous pattern, or demonstrated dysplasia.
• We compared polyp detection rate between patients with and without a family history at each age group.

Result IV
• The 56-60 age group with no family history had polyps (26.83%):
  • 22 patients without family history had polyps (26.83%):
    • 3 with adenomas (14.55%)
    • 16 had adenomas (72.73%)
    • 2 with advanced adenomas (9.09%)
• 13 patients with family history had polyps (46.43%):
  • 9 had adenomas (32.14%)
  • 3 had advanced adenomas (10.71%)
• Comparing patients with and without a family history of colon cancer/polyps of similar age groups, our preliminary data shows a trend for increased polyps, adenomas, and advanced adenomas in patients with family history in the 56-60 age group.

Conclusion
• Comparing patients with and without a family history of colon cancer/polyps of similar age groups, our preliminary data shows a trend for increased polyps, adenomas, and advanced adenomas in patients with family history in the 56-60 age group.
• Additional studies are needed to investigate if this trend becomes statistically significant when a larger group size is used.

Table I
<table>
<thead>
<tr>
<th>Age Group</th>
<th>Pts</th>
<th>Pts With Polyps</th>
<th>Pts With Adenomas</th>
<th>Patients With Advanced Adenomas</th>
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<tr>
<td>50-55</td>
<td>164</td>
<td>52</td>
<td>36</td>
<td>2</td>
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<tr>
<td>56-60</td>
<td>82</td>
<td>22</td>
<td>18</td>
<td>4</td>
</tr>
<tr>
<td>61-65</td>
<td>37</td>
<td>12</td>
<td>9</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td>283</td>
<td>86</td>
<td>61</td>
<td>16</td>
</tr>
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</table>

Table II
<table>
<thead>
<tr>
<th>Age Group</th>
<th>Pts</th>
<th>Pts With Polyps</th>
<th>Pts With Adenomas</th>
<th>Patients With Advanced Adenomas</th>
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</thead>
<tbody>
<tr>
<td>50-55</td>
<td>73</td>
<td>23</td>
<td>10</td>
<td>3</td>
</tr>
<tr>
<td>56-60</td>
<td>28</td>
<td>13</td>
<td>9</td>
<td>3</td>
</tr>
<tr>
<td>61-65</td>
<td>18</td>
<td>6</td>
<td>3</td>
<td>1</td>
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<tr>
<td>Total</td>
<td>119</td>
<td>42</td>
<td>22</td>
<td>7</td>
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</table>
Introduction

Morbid obesity has become a serious epidemic problem in the United States affecting nearly one-fourth of the population. This trend has been attributed to declining physical activity and the over abundance of high calorie, fast food choices. Obesity not only negatively impacts on patient’s appearance and self-esteem. It also is a serious health maintenance element. It has a significant association with chronic diseases including hypertension, diabetes, and hypercholesterolemia. It directly contributes to higher rates of coronary artery disease, congestive heart failure, pulmonary hypertension, deep venous thrombosis and pulmonary embolism, thus reducing life expectancy. There have been numerous therapeutic options exploring long term solutions to the obesity problem, including increasing activity in conjunction with low calorie diets, and anorectic drugs along with behavioral modifications. Ultimately, each of these conservative strategies is associated with only a very modest degree of temporary success. More recently, surgical options have emerged as the most effective long-term solution to the morbidly obese patient.

The most common surgery, the Roux-en-Y gastric bypass (RYGB), takes advantage of both restrictive (small gastric remnant) and malabsorptive techniques (intestinal bypass). Several post-operative complications have been described that have limited the overall therapeutic success. An occasional problem with these restrictive procedures is progressive postoperative stricture of the gastrojejunostomy which results in a variety of detrimental symptoms. This complication can shorten the endoscopic efficacy of balloon dilation of the gastrojejunostomy, but with limited follow-up data. Herein, we present one of the largest series of symptomatic strictures following RYGB treated by endoscopic balloon dilation.

Aim of Study

1. To determine the long-term efficacy of endoscopic balloon dilation of symptomatic stenosis of the gastrojejunal anastomosis in RYGB patients
2. To determine complication rates of endoscopic balloon dilation of stenosis of the gastrojejunal anastomosis

Method

• 51 patients with prior history of RYGB for morbid obesity presented with symptoms of gastric outlet obstruction.
• Symptoms included accelerated weight loss (n = 43), nausea/vomiting (n = 49), abdominal pain (n = 11) and dysphagia (n = 8). All patients presented with symptoms of gastric outlet obstruction. A growing body of literature has reported on the endoscopic efficacy of balloon dilation of symptomatic stenosis of the gastrojejunal anastomosis in RYGB patients. The most common surgery, the Roux-en-Y Gastric Bypass (RYGB) surgery

Result I

• Patients underwent 1-7 dilating sessions (mean 2.5 patient) at 3-week intervals.
• Estimated gastrojejunal anastomosis open biopsy fluoroscopy prior to dilation ranged from 1 mm (range 2-18 mm), which increased to a mean 12.3 mm (range 3-18 mm) at final endoscopy.
• In patients requiring a single dilation session (n = 11), pre-dilation gastrojejunal anastomosis was a mean 6.1 mm (range 3-9 mm) which increased to mean 13.1 (range 10-16 mm).

Result II

• In patients requiring multiple sessions (n = 40), pre-dilation gastrojejunal anastomosis was a mean 4.2 mm (range 0-5 mm), which increased to a mean 12.3 mm (range 10-20 mm).
• 46/51 patients had good long-term response with follow up of 10–36 months (mean 40 months).

Conclusion

• Of the complications following bariatric surgery that are amenable to endoscopic therapy, stenosis of the gastrojejunal anastomosis appears to be relatively common.
• Endoscopic balloon dilation is an effective, long-term non-surgical treatment option with no complications observed in our study.

Table 1

<table>
<thead>
<tr>
<th>Frequency of Dilation</th>
<th>Percentage (%)</th>
</tr>
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<tbody>
<tr>
<td>Pre-dilation (SD)</td>
<td>6.1 (2.2)</td>
</tr>
<tr>
<td>Post-dilation (SD)</td>
<td>13.1 (3.8)</td>
</tr>
<tr>
<td>Difference (SD)</td>
<td>7.0 (2.1)</td>
</tr>
</tbody>
</table>

Table II

<table>
<thead>
<tr>
<th>Mean Anastomosis Diameter (mm)</th>
<th>Pre-dilation(SD)</th>
<th>Post-dilation(SD)</th>
<th>Difference(SD)</th>
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</thead>
<tbody>
<tr>
<td>Single Dilation</td>
<td>4.2 (3.2)</td>
<td>12.3 (3.8)</td>
<td>7.0 (2.1)</td>
</tr>
<tr>
<td>Multiple Dilation</td>
<td>2.4 (1.3)</td>
<td>9.9 (1.6)</td>
<td>6.5 (1.7)</td>
</tr>
</tbody>
</table>

Table III

<table>
<thead>
<tr>
<th>Pre-dilatation Diameter (mm)</th>
<th>Post-dilatation Diameter (mm)</th>
<th>Difference (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>6.1 (2.2)</td>
<td>13.1 (3.8)</td>
<td>7.0 (2.1)</td>
</tr>
</tbody>
</table>
Sphincter of Oddi Dysfunction is a syndrome previously described in post-cholecystectomy patients presenting with abdominal pain only (type II) or with or without elevated LFTs and elevated CBD (Type I, Type II). Controversies still exist in bilary Sphincter of Oddi Dysfunction. Pancreatic Sphincter of Oddi Dysfunction presents an even greater diagnostic and therapeutic challenge. Pancreatic sphincter hypertension of the major papilla, a variant of Sphincter of Oddi Dysfunction is a potential cause of acute recurrent pancreatitis, chronic pancreatitis and pancreatic-type pain. Little long-term data exists describing pancreatic Sphincter of Oddi Dysfunction including presentation, endoscopic sphincterotomy technique and long-term outcome. Response rates of endoscopic sphincterotomy vary (64-91%). Our experience suggests failure to respond to pancreatic sphincterotomy include: 1. Inadequate pancreatic sphincterotomy; 2. Recurrent pancreatic stenosis, and 3. Presence of chronic pancreatitis.

**Aim of Study**

- Determine long-term outcome of pancreatic ES in patients with pancreatic Sphincter of Oddi hypertension.
- Determine rate of residual pancreatic sphincter hypertension in patients following initial pancreatic ES.

**Method I**

- Consecutive patients presenting over 11 yrs with suspected pancreatic SOD were reviewed.
- Data was obtained using an extensive questionnaire with 12 pre-op and 14 post-op data points.
- Pancreatic SOM was performed in standard fashion using a triple lumen perfusion catheter.
- Basal SO pressure (SOP) ≥40 mmHg was considered an abnormal study.
- Endoscopic sphincterotomy of the pancreatic segment of the SO was performed using a monopolateration-typetappertome (pure cut current; 50 pulses).

**Method II**

- ES was directed in the 12 o'clock direction to completely ablate pancreatic segment of the SO.
- 5-7 French stents were placed (modified or non-modified) following ES.
- Prior to 2007, modified stents (no internal phalange) were placed and patients followed clinically.
- Since 2007, non-modified stents (internal phalange) were placed.
- Patients returned for FU every 6 weeks to ensure complete SO ablation (decreasing re-stenosis rates).

**Result I**

- 243 patients (205 female, 38 male) presented for pancreatic SOM.
- 101 patients (81 female, 20 male) were found to have high SOP.
- 42 patients had SOM with modified stents (Group I); while 59 had SOM with non-modified stent placement with follow up ERCP and SOM and re-treatment if residual pressures were found (Group II).

**Result II**

- In Group I, 18 presented with ARP; 10 with CP; and 14 with pancreatic-type pain.
- In these patients, symptom resolution was seen in 10/18 ARP (56%); 4/10 CP (40%); and 3/14 pancreatic-type pain (21%) patients.

**Conclusion**

- Sphincter of Oddi hypertension may be the cause and/or the result of patients with ARP, CP or those with pancreatic-type pain.
- Patients with ARP and high SO pressures of the pancreatic segment of the SO appear to have the best long-term resolution of symptoms following endoscopic sphincterotomy.
- Follow-up SOM in these patients reveals residual SO pressures in a significant minority of patients. Extension of ES can optimize long-term symptom resolution in all groups.
Type III Sphincter of Oddi Dysfunction (SOD): Long Term Follow Up at a Tertiary Referral Center

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Introduction
Sphincter of Oddi Dysfunction (SOD) refers to a benign functional disorder that affects the sphincter of Oddi. Type III SOD defined by the revised Milwaukee classification refers to biliary type pain without elevated LFTs or dilated CBD. Type III SOD remains one of the more obscure entities in terms of pathogenesis and limited by the current literature, has significant long-term impact on the patient. SOD occurs more commonly in females, is reported to negatively impact quality of life with increased physical disability, time lost from work and overuse of healthcare resources. Patients usually present with abdominal pain (upper quadrant-RUQ) and may have concomitant elevation of the LFT’s and/or dilation of the CBD. Sphincter of Oddi Monometry (SOM) remains the gold standard study to establish the diagnosis. SOM results in increased risk of post ERCP acute pancreatitis (approaching 40%) and performed only at tertiary centers. Studies have reported that 60% of SOD III patients have established increased pressures in either sphincter. With abdominal pain, LFTs ≤ 2x NL, lipase ≤ to 3x NL and CBD diameter ≤12mm, SOD type III definition (63%). Approach to treatment including endoscopic sphincterotomy (ES) as well as other medical treatments need to remain vigilant to AP when performing SOD as these patients remain high risk.

Method I

• Data was prospectively gathered over a 6 year period (2005-2011) using electronic medical records (EMR), including age, gender, prior imaging, prior treatment trials, SOM results, ES complication rates and outcomes.

• Inclusion criteria: pancreatobiliary type pain, LFTs ≥ 2x NL, lipase ≥ 3x NL and CBD diameter ≥12mm.

• Exclusion criteria: history of pancreatitis acute/chronic, previous ES, pancreas divisum, and prior pancreatic-biliary surgery.

Method II

• 102 patients met the above entry criteria. Charts were reviewed using our internal EMR system. Treatment outcomes were measured in one of 3 ways:
  • Complete pain relief (<3 months, ≥3 months )
  • Partial pain relief (pain ≤ 50% baseline)
  • No relief

• Follow up was obtained by EMR and phone interview

Results I

• 236 patients (135 female, 41 male) with SOD III were evaluated

• 102 had increased pressures as measured by SOM

• 7 were excluded based on exclusion/exclusion criteria

• 6 patients could not be contacted resulting in 89 patients (78 female, 11 male) evaluated

Results II

• 27 had gall bladder in-situ, while 62 had gallbladder previously removed

• Complete response was seen in 21 patients (24%) partial in 31 (35%) and no response in 37 (41%)

• Complete/partial response was seen in 13/27 patients with in-situ gall bladder (48%) while complete/partial response was seen in 39/62 patients without gallbladder (63%). Approaching statistical significance.

• ERCP associated acute pancreatitis occurred in 16/89 patients (18%)

Conclusion

• In one of the larger studies evaluating SOD III patients our data demonstrates a slightly lower response rate of 58% likely due to open access SOM in this complex group of patients with a potentially broad differential diagnosis

• Similar to published reports post ERCP AP occurred in 18% (all mild disease)

• Endoscopists need to remain vigilant to AP when performing SOD as these patients remain high risk

• Presence/absence of gallbladder had a modest affect on outcome, contrary to published data

• Prospective studies to establish patient specific characteristics that can positively affect outcome are ongoing.
More Evidence Supporting Genetic Counseling And Testing Followed By Endoscopic Ultrasound In The Early Detection Of Pancreatic Cancer In High Risk Patients

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Background

• More than 40,000 cases of pancreatic cancer are diagnosed annually in the US, mostly at an advanced stage.
• Pancreatic cancer is the fourth leading cause of cancer death worldwide.
• Some patients with a family history of pancreatic cancer or other tumors are at increased risk.
• Screening patients with certain genetic mutations or familial history of pancreatic cancer may lead to earlier detection and improve overall morbidity and mortality.

Methods

This was a cohort study from 2008 to 2010 at a large tertiary referral center in Milwaukee, Wisconsin.
• 39 patients were referred for genetic counseling and cancer risk assessment.
• 21 of these patients met the screening criteria for high risk (Table 1).
• 12/21 patients underwent EUS.
• The most common reason for not proceeding with EUS, evident in 5 of the 9 patients, was due to presence of advanced age and medical comorbidities.
• Fine needle aspiration was performed if abnormalities were noted during EUS.

Table I

Patients at high risk for pancreatic cancer

| BRCA1 or BRCA2 positive with family history of pancreatic cancer |
| Lynch syndrome with family history of pancreatic cancer |
| Muir-Torre syndrome |
| 2 or more relatives with a history of pancreatic cancer |
| Familial pancreatic cancer |

| 2/12 patients who were of high risk and underwent EUS had abnormalities detected for which they underwent FNA; both patients were diagnosed with pancreatic cancer. |
| Both patients were identified and referred for genetic counseling due to their personal and family histories of breast cancer. |
| A mass was seen on EUS but the first FNA was normal. |
| Repeat EUS/FNA 6 months later showed adenocarcinoma. |
| Surgery was performed showing stage I disease and adjuvant chemotherapy was given. |
| Both patients had breast cancer and a BRCA2 mutation. Both were diagnosed with pancreatic cancer in earlier stage disease. |

Figure I

Conclusion

• 2/12 patients who were screened with EUS due to a high-risk for pancreatic cancer had FNA.
• Both patients had breast cancer and a BRCA2 mutation. Both were diagnosed with pancreatic cancer in earlier stage disease.
• Genetic risk assessment with EUS +/- FNA in high risk patients may lead to earlier detection. This may improve overall morbidity and mortality.
• Greater emphasis should be placed on screening patients for hereditary cancer syndromes that increase the risk of pancreatic cancer.