Pancreatic Cystic Tumors

Pancreatic cystic neoplasms were once rarely recognized causes of pancreatic cancer, but with the common use of cross-sectional abdominal imaging, they are now recognized to be a cause of morbidity and mortality. Pancreatic cysts are increasingly found with computerized tomography (CT) scans. It is estimated that over 2% of patients who have abdominal CT scans, one or more cysts will be discovered.

Fortunately, these cysts are most often asymptomatic and benign. Most cysts are either benign simple cysts or pancreatic pseudocysts, so named for their inflammatory nature. These cysts tend to remain stable or resolve over time, requiring no intervention or monitoring.

Pancreatic Cystic Tumors

Pancreatic cystic neoplasms are a different story. They may be characterized either as serous or mucinous, and the mucinous entities, namely mucinous cystic neoplasms (MCNs), intraductal papillary mucinous neoplasms (IPMNs), and solid pseudopapillary neoplasms (SPNs) have a variable but definite risk of malignancy.

Over the last 15 years endoscopic ultrasound (EUS) with cyst aspiration has had a growing role in the diagnosis and management of these cysts. The challenge has been to identify cysts that have malignant risk, so that they may be monitored or undergo definitive treatment. With the validation of tumor marker analysis, in particular measurement of cyst fluid CEA, a definitive diagnosis is possible. Cytology has been disappointing, but future analysis of cyst DNA may lead to better predictions of cyst behavior.

It is a daunting task to determine which pancreatic cysts to investigate. Endoscopic ultrasound should be offered to patients who have pancreatic cysts that are not clearly pseudocysts when certain size criteria are met. A cyst over 2 cm, a cyst of any size that is symptomatic, or a cyst that has been found to be increasing in size, should be evaluated for endoscopic ultrasound and cyst aspiration. If cysts are found to have elevated CEA levels or suspicious cytology, or if the cyst is found to be growing, especially if over 3 cm, and have concerning ultrasonographic features, such as mural nodules or an associated mass, surgical resection is often offered. On the other hand, cyst tumors that have elevated CEA levels but are small, stable, and fail to exhibit concerning features are often monitored with MRI or EUS.

There are several centers that specialize in pancreatic cyst evaluation. The Oregon Clinic - Gastroenterology specialty offers this service and works closely with our colleagues in surgery and radiology to provide comprehensive analysis and recommendations for our mutual patients who have pancreatic cysts.
Health Care Maintenance for Patients with Inflammatory Bowel Disease

by Dr. Betty Kim

Optimizing medical management for patients with Crohn's disease or Ulcerative Colitis in the modern era may involve not only anti-inflammatory therapies, but potentially treatments directed toward modulating the immune system. These may include steroids; oral immunosuppressants such as Azathioprine (AZA), 6-Mercaptopurine (6-MP), Methotrexate (MTX); and potentially combination therapy with biologic agents such as anti-TNF alpha (Infliximab, Adalimumab) or anti-adhesion molecule therapies ( Vedolizumab or Natalizumab). While the focus of patient care by the gastroenterologist is induction and maintenance of disease remission, it is important to stay current with the patient’s preventative health care as they are not only at risk for complications of their disease, but also potential side effects of their treatments.

Vaccine Preventable Diseases

Because many patients with inflammatory bowel disease may be immunosuppressed at some point in their treatment, it is ideal to administer vaccines well in advance of initiating therapy. Furthermore, live virus vaccines are generally contraindicated in patients who are on high-level immunosuppression as they may develop an attenuated form of the disease with live virus exposure. This is considered to be >20mg prednisone/day, >0.4mg/kg/day MTX, >3mg/kg/day AZA or >1 5mg/kg/day 6- MP, or active biologic therapy.

The following are the recommended vaccinations for all IBD patients:

» Diphtheria and Pertussis: If not received in last 10 years, or Td greater than 2 years ago. 
» Influenza: Recommended annually (injection only, not live intranasal vaccine)
» HPV: Females and males between ages 9-26
» Hepatitis A: If non-immune based on prior exposure or prior vaccination
» Hepatitis B: If non-immune based on prior exposure or prior vaccination
» Meningococcal meningitis: Primarily for college students and others at increased risk. If not previously vaccinated or if immunocompromised, re-vaccinate after 5 years.

Bone Health & Nutritional Deficiencies

Studies suggest osteoporosis is present in 18-42% of patients with IBD. Osteopenia is present in 22-77% of patients newly diagnosed with IBD. An increased incidence of fractures has also been described in population-based studies of IBD patients. Thus, optimizing bone health in IBD patients may help prevent future complications.

» Vitamin D deficiency is frequently identified in the IBD patient, particularly those with prior corticosteroid therapy. Check Vitamin D 25-OH level at least once, with appropriate interval follow up.
» Calcium supplementation of at least 1000mg and Vitamin D supplementation of at least 600 IU daily is recommended. Those with established osteopenia, osteoporosis or malabsorption may require more.
» Bone Density Testing is recommended in the following patient groups:
  » Steroid use >3 months
  » Maternal history of osteoporosis or prior fracture history
  » Malnourished or thin build
  » Amenorrhea or hypogonadism
  » Post menopausal women and males >50

Cancer Prevention

» Skin Cancer: The use of immunosuppressing medications for the induction and maintenance of remission in IBD patients increases the risk of skin cancers. Topirumines such as AZA and 6-MP, are associated with non-melanoma skin cancers, likely related to increased photosensitivity to UVA light. This risk increases more than after the drug is withdrawn. Biologic therapy are also associated with a risk of nonmelanoma skin cancers, and possibly melanoma skin cancers as well, though the evidence for melanomas is less certain. IBD patients on immunosuppression should have an annual screening exam by a dermatologist, avoid prolonged sun exposure, and use sunscreen regularly.
» Cervical Cancer: Annual PAP smears if immunocompromised.
» Colon Cancer: Patients with chronic colitis have an increased risk of colon cancer based on their disease distribution. If a patient has pancolitis, annual or biannual surveillance colonoscopy with targeted mucosal biopsy to assess for dysplasia after 8 years of disease is recommended. Surveillance in patients with left sided colitis only should begin after 15 years of disease. Patients with only proctitis do not have increased risk of disease-related colon cancer and should follow routine recommendations for colon cancer screening in the general population.
» Counseling for Smoking Cessation: Besides the obvious risk of lung cancer, smoking can worsen Crohn's disease activity, decrease effectiveness of anti-TNF therapies and increase the need for surgical intervention.

Reducing Your Risk of Colon Cancer

by Dr. Viju Deenadayalu

I am pleased to report we had another successful Colon Cancer Awareness Campaign in March of 2015. Over the last decade, mortality from colon cancer has decreased nearly 30% for those 50 and older, largely in part to the effectiveness of colonoscopy. Yet, only 60% of individuals in the screening population have completed an acceptable form of colon cancer screening. Fortunately, there is a nationwide effort underway to increase the colon cancer screening rate to 80% by 2018.

Aside from getting a colonoscopy at age 50, or actively participating in another acceptable form of colon cancer screening, many individuals may wonder what else can be done to prevent or reduce the risk of colorectal cancer (CRC). In conjunction with established colon cancer screening modalities, there are several additional ways to reduce the risk of colon polyps and colon cancer. And, many of these strategies also limit the risk of developing heart disease.

1. Exercise

There is a significant amount of data showing that regular exercise reduces the risk of developing colon cancer and colon polyps while physical inactivity may increase it. Several observational studies have demonstrated a 25% reduction in colon cancer with 30 minutes or more of moderate to vigorous physical activity at least 4 days per week.

2. Diet

A diet that is high in fruits, vegetables, and thus fiber, may offer some degree of protection from developing colorectal cancer. However, the degree to which dietary fiber intake reduces the development of adenomas or CRC is uncertain since the results of studies have been conflicting. Similarly, reducing consumption of red meat, other animal fats, foods that have been processed, salted, smoked, or cured may also have beneficial effects. For those who choose to consume red meat in their diet, choosing lean cuts, and limiting intake to two 4 ounce portions per week may be a reasonable compromise.

3. Tobacco Use

While smoking is well known to increase the risk of heart disease and lung cancer, studies show it also increases the risk of CRC. Cigarette use is responsible for approximately 20% of CRCs in the U.S. The individuals at greatest risk are those with a twenty-pack year smoking history of ≥10 years and are male, as well as those with a family history of CRC. In these individuals, the risk of developing adenomatous polyps is ≥3 fold greater than non-smokers. For many health related reasons, smoking cessation should always be strongly encouraged.

4. Obesity

The relative risk of developing adenomas and advanced adenomas (polyps >1 cm or with advanced histologic features) is twice as high in obese individuals. Those who are overweight as defined by a body mass index (BMI) of 25-29, and those who are obese (BMI 30 or >) may have a 1.5 to 2.8-fold increase in CRC compared with their non-obese counterparts.

In summary, the best way to reduce the risk of developing CRC is to follow the recommended guidelines for colon cancer screening. Colonoscopy is the preferred method of screening for colon cancer prevention, since it is the only modality that allows both identification and removal of precancerous colon polyps with a single exam. In addition to the recommended methods of colon cancer screening, the above measures may serve as useful adjuncts to reduce the risk of developing colon polyps and colon cancer.

5. Alcohol Consumption

Individuals who drink 3-5 drinks per day may have a 20 – 50% higher risk of CRC development than those who only have occasional drinks. This finding may be partly explained by the protective effects of folic acid, and a higher likelihood of folic acid deficiency in those who drink significant amounts of alcohol. If your patients drinks alcohol, encourage moderation (limiting intake to 1 drink per day for women and 2 drinks per day for men).

6. Protective Factors

There is limited data supporting the benefits of vitamin B6 (pyridoxine), calcium with vitamin D, and folic acid. A modest association between vitamin B6 intake and a decrease in CRC has been suggested in available data. Consuming the recommended daily allowances of calcium and vitamin D may have protective effects against CRC.

7. Aspirin and NSAIDs

A substantial amount of evidence has shown that aspirin and NSAIDs are protective against the development of colorectal adenomas and CRC. Routine use of aspirin and NSAIDs may reduce the development of colorectal adenomas and CRC by 20-40%. However, the risks of routine use of aspirin and NSAIDs is not recommended given the increased risk of bleeding associated with these medications. If aspirin is already being used for its cardioprotective effects, there may be an added bonus of reducing the risk of CRC.

8. Know Your Family History

While the majority of colon polyps and CRCs develop sporadically, approximately 20% of CRCs may be the result of a hereditary/genetic component. The lifetime risk of developing colon cancer is 6% and is roughly doubled in those with a single first degree relative with CRC. Being familiar with your patient’s family history of colon polyps and CRC is crucial in determining their risk of colon cancer. Family history also plays a role in determining the appropriate interval between colonoscopic examinations.

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