

Patient information regarding care and surgery associated with COLON CANCER

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Colon Cancer

There are an estimated 140,000 new cases of colorectal cancer each year in the USA. The average age of a patient with colorectal cancer is 65, though all ages may be affected. Those with hereditary cancers tend to be younger. For example, those with Hereditary Nonpolyposis Colon Cancer develop cancer at an average age of 45 years, with 50% less than age 40. Those with Familial Adenomatous Polyposis develop colorectal cancer at an average age of 40 years.

About the Colon and Rectum

The colon and rectum is about 5 feet long. Food passes through the stomach, then the small bowel, then the colon, and finally the rectum and anus. The small bowel is 12-20 feet and is largely responsible for absorption of nutrients and vitamins in food. The colon absorbs water but the small bowel can assume this function in the absence of the colon. In fact, there are several diseases that require removal of the entire colon and rectum. These patients generally lead normal lives and do not develop malnutrition because their small bowel is intact. The colon and rectum stores stool until it is ready to be expelled. Removing a portion or all of the colon and rectum may result in diarrhea, urgency, or gas/stool leakage but usually not.

Symptoms

Symptoms of colon cancer may include rectal bleeding, change in bowel habits (new onset diarrhea or constipation), a feeling of incomplete evacuations, and others. Abdominal pain, constipation, and weight loss may reflect a cancer that is near obstructing. Many cancers are found in patients without symptoms through screening methods such as colonoscopy.

Colorectal Cancer Screening

Those individuals without risk factors for colorectal cancer (rectal bleeding, positive family history of colon cancer) should be screened for colon cancer starting at age 50 years. There are several options which include testing stool for blood, flexible sigmoidoscopy, and colonoscopy. You should discuss the most appropriate option with your primary care physician or colorectal specialist. If you have rectal bleeding, colorectal cancer screening may be

warranted at an earlier age depending on other factors involved. If you have a first degree relative with colorectal cancer, you should have colonoscopy starting at age 40 years or 10 years prior to the age of the youngest relative with colorectal cancer. The test should be repeated every 3 to 5 years if normal and possibly sooner if polyps are found. If you have had colorectal cancer or polyps, your relatives should be screened by colonoscopy.

Others at risk for colorectal cancer that warrant further investigation are those with a history of inflammatory bowel disease (ulcerative colitis and Crohn's disease) and possibly those with other cancers (breast, uterus, ovary). At this time, many colorectal specialists advocate 2 colonoscopies 10 years apart starting at age 50 for those without other risk factors. Again, you should discuss these options with your colorectal specialist.

At the Time of Your Visit

When you are seen by the colorectal specialist, you will be asked several questions with respect to your history. If you have had blood tests, x-rays, colonoscopy, ultrasound, and CT scans, make sure these are made available to your colorectal specialist prior to your visit. Some of these tests may be ordered by the colorectal specialist if they have not already been done. A general examination to include heart, lungs, and abdomen will likely be performed. Following this examination, if enough information is available, a detailed discussion with your colorectal specialist regarding treatment options will follow.

If your operation involves the possibility of a colostomy or ileostomy, you should have an appointment with the enterostomal nurse prior to surgery. She will provide important information regarding life with a stoma, educate you regarding any nuances, and may mark an optimum site on your abdominal skin.

At the time your surgery is scheduled, you will be asked to undergo preprocedure testing which may include blood tests, a chest xray, and an EKG. You will also be instructed in a mechanical bowel prep which will clean out your colon in preparation for surgery and is described below.

Treatment Options

1) Surgery

- Right Colectomy
- Right Hemicolectomy
- Transverse Colectomy
- Left Colectomy
- Sigmoid Colectomy
- Low Anterior Resection

2) Radiation Therapy

3) Chemotherapy

4) Immunotherapy

Surgery

You will likely be asked to drink a solution that clears the colon and rectum of stool and is similar or the same as the solution you drank for colonoscopy. This preparation is usually done at home the day prior to surgery. You may be asked to take antibiotics by mouth every hour for 3 doses after completing the mechanical bowel preparation. You will be asked not to eat or drink anything after midnight prior to surgery but you may take your medications with a sip of water. You will be asked to arrive at the hospital several hours prior to the scheduled surgery time. Upon arrival you will meet the nursing staff who will ask you historical questions and prepare you. You will meet the anesthesiologist who will explain anesthetic options. The vast majority of our patients have an epidural anesthetic in addition to a general anesthetic. The epidural catheter is left in your back (well secured) for about 4 days after surgery as it is the best method to obtain pain control without many of the mental cloudy side effects. You will be expected to walk with or without assistance the day after surgery. We expect you to feel comfortable especially if you have an epidural catheter in place. You will likely be started on liquids within 1-3 days after surgery and will be eating regular food prior to discharge from the hospital. If you have an ileostomy or colostomy, an enterostomal nurse will visit you and educate and instruct you with regard to care of the stoma.

Surgery for colon cancer generally requires the segmental removal of a portion of the colon. This may entail the removal of 1-2 feet in patients with a single colon cancer. Some patients with multiple neoplasms or with other concomitant conditions may require the removal of much or all of the colon, in which case the small bowel is hooked up by sutures or staples to the top of the rectum. The removal of a segment of cancer-containing colon includes the removal of attached lymph nodes and blood supply to that segment. For this reason, it is rare to remove just a few inches. A cancer-curing operation includes removing the involved lymph nodes and blood supply and this may involve at least a foot of colon. The operation most suited for you will be discussed with you in detail at the time of your office visit. The operation is typically done through a midline (up and down) incision. Options and risks will be discussed at length at this time. If anything is not clear or if you have questions, you should feel free to ask your colorectal specialist during this office visit.

Except in patients operated on under urgent conditions with obstructing or perforated colon cancers, it is unusual to need a colostomy (bag) or ileostomy during elective surgery for colon cancer. Rarely, unexpected findings or complications may warrant a temporary or permanent colostomy or ileostomy. If this is expected, a consult with an enterostomal nurse with expertise in stomas will be obtained prior to surgery.

Radiation

A small number of patients with locally advanced colon cancers may need radiation therapy after surgery. If you are a candidate for this, a consultation with a Radiation Oncologist will be obtained.

Chemotherapy

Some patients may be good candidates for 6-12 months of chemotherapy after surgery for cancer of the colon. Those patients who are candidates usually have a tumor that has invaded all layers of the colon wall and/or have lymph nodes involved with tumor. The Pathologist will provide us with this information. If you are a candidate for chemotherapy, a consultation with a Medical Oncologist will be obtained to discuss these options with you.

Risks of Surgery

Our hope and expectation is that you have uncomplicated surgery and a successful outcome. This is not always predictable, however, and something that cannot be guaranteed.

The risks of surgery for cancer of the colon include

- 1) bleeding
- 2) infection
 - a. abdominal wound or intra-abdominal infection or abscess
- 3) anastomotic leak (suture or staple line leak)
 - a. may require antibiotics, longer hospitalization, drainage with CT scan guidance, or another surgery to resolve
 - b. may require temporary or permanent colostomy or ileostomy
 - c. may result in death from sepsis
- 4) abscess
 - a. may require antibiotics, longer hospitalization, drainage with CT scan guidance, or another surgery to resolve
- 5) bowel movement frequency
- 6) bowel movement leakage
- 7) bowel movement urgency
- 8) injury to ureter
 - a. structure that carries urine from kidneys to bladder
- 9) injury to other bowel and blood vessels
- 10) injury to or dysfunction of urinary bladder
- 11) bowel obstruction
 - a. usually from adhesions from surgery
 - b. can occur in 10-20% of patients
 - c. may require another operation

- 12) ileus
 - a. the bowels normally stop working for a few days after surgery. If they continue not to function after this, it is referred to as an ileus

- 13) sexual dysfunction
 - a. impotence or retrograde ejaculation in men (rare)
 - b. depends on age and level of rectal dissection so theoretically only possible with distal sigmoid colon cancers
 - c. pain with intercourse in women

- 14) possible temporary or permanent colostomy (bag) or ileostomy

- 15) stoma complications
 - a. for those patients with ileostomy or colostomy
 - b. retraction, ischemia (poor blood supply), hernia, prolapse

- 16) general operative complications
 - a. heart attack : especially those with heart history
 - b. pneumonia
 - c. sepsis
 - d. blood clot in leg
 - e. blood clot from leg to lung (can be life threatening)
 - f. urinary tract infection
 - g. leg nerve injuries (result of retractors or leg stirrups: rare)

- 17) incisional hernia
 - a. may require operation to repair

- 18) anastomotic stricture
 - a. may result in constipation (unusual)
 - b. may require dilation through scope to repair
 - c. may require operation to repair

- 19) possible death

After Surgery

After major abdominal surgery, expect to be in the hospital 5-8 days. Some patients are ready for discharge as early as 4 days after surgery. Some may remain longer than 8 days if the bowels are slow to recover or if a complication develops. The specimen removed at the time of surgery is sent to the pathologist who examines it. About 4 working days (not including Saturday and Sunday) after surgery, a pathology report will be generated. Your colorectal surgeon will review this report with you and discuss its implications. Depending on the results

of this report you may need 6-12 months of chemotherapy. A medical oncologist will discuss the options and risks with regard to chemotherapy.

After Discharge

Prior to discharge from the hospital, you will receive oral and typewritten discharge instructions. If you have an abdominal incision you should not lift anything greater than 10 pounds for 6 weeks from your surgery date. Unless otherwise instructed you may eat a regular diet, walk, climb stairs. You should not drive until at least your first office visit at which time you will be further instructed. You may ride in a car. You should call our office (734-712-8150) if you develop a fever > 100.5 degrees and should take your temperature at least 4 times a day. You should also call for nausea, vomiting, problems with the incision including unusual pain, redness, warmth, swelling, separation of skin or underlying tissues, constipation or diarrhea, or other problems that you feel need to be addressed. If you develop chest pain or shortness of breath or leg swelling, you should call your primary physician or our office or come to the emergency room. If you feel it is an emergency, call 911.

Most patients take 6 weeks off from work after having abdominal surgery. You may feel more tired than usual. You may take naps more frequently than usual. Do not be alarmed if you feel fatigued and are not your old self for about 6 weeks after surgery.

Websites

For additional information try the American Society of Colon and Rectal Surgeons at www.fascrs.org and www.uoaa.org