ALASKA COLORECTAL SURGERY

Colonoscopy

Most of the gastrointestinal (G.I.) tract from the mouth to the anus can be examined by endoscopy (endo, inside; scope, see; to see inside the body). The endoscope is a long and flexible tube that contains a light source, a lens system for focusing, and fiber optics to conduct light into the bowel. A picture of the bowel wall is sent back to a video camera and displayed on a monitor. The tube also contains a working channel through which small instruments can be passed for various uses. Colonoscopy enables the physician to examine the lining of the colon (large bowel), and is done by inserting the flexible endoscope (called a colonoscope) into the rectum and then into the entire colon.

Pathology:

- Cancer of the colon and rectum is common in patients over age 50 and steadily rises thereafter. Americans have about a five percent chance of developing colorectal cancer if they live to 70 years of age.
- Polyps are thought to progress to cancer.
- Diverticulitis is a condition that is common in western society. It increases with age and is present in approximately 75% of Americans over the age of 80. It is associated with diverticula, which are protrusions of the innermost lining of the colon through the muscular outer layers of the colon wall. The diverticula can become inflamed, a condition called diverticulitis, which can cause perforation of the bowel with abscess, bleeding, obstruction of the bowel, or fistulae of the colon (a communicating hole between the colon and other organs such as the small bowel, urinary bladder, vagina, or skin).
- There may also be inflammatory bowel disease, namely Crohn's disease, ulcerative colitis, or ischemic (decreased blood supply) colitis. These conditions result in inflammation of the colon that can involve the entire thickness of the colon wall (Crohn's disease, ischemic colitis) or only the mucosa, the innermost lining of the colon (ulcerative colitis).

Indications:

Indications for colonoscopy are:

- Blood in the stool
- Preventative colonoscopy – periodic colonoscopy is desirable over age 50 to detect polyps
- Polyp found on X-ray studies
- Persistent diarrhea or constipation
- Imaging studies (barium enema, CT scan, MRI) suggestive of an abnormality

Procedure:

- The colon must be completely cleaned for the procedure to be accurate and complete. In general, preparation consists of being on a liquid diet the day before the test and taking laxatives to clean the bowel.
- Most medications may be taken as usual but some medications may interfere with the preparation or examination. Therefore, the physician should be told of the medications that the patient is taking as well as any allergies to medications. Aspirin products, arthritis medications, anticoagulants (blood thinners, i.e. Coumadin, Plavix), insulin, and iodine products are examples of such medications. The patient should also alert the physician if they require any antibiotics prior to the procedure.
- Colonoscopy is usually done under sedation. It is common for patients to sleep during the procedure. Some discomfort, such as a feeling of pressure, bloating or cramping, or pain may be encountered at all times.
- The patient lies on the left side, or sometimes on the back during the procedure.
- The colonoscope is slowly inserted into the rectum and slowly advanced through the colon while the physician removes any residual material missed by preparation and observes the wall of the bowel. As the colonoscope is slowly withdrawn, the lining is again carefully examined. In some cases, passage of the colonoscope through the entire colon to its junction with the small intestine cannot be achieved.
- The procedure takes between 15-30 minutes. If the examination is not complete, the physician will decide if other examinations are necessary.
- If an area of the bowel wall needs to be evaluated in greater detail, a forceps instrument is passed through the colonoscope to obtain a biopsy. The specimen is submitted to the pathology lab for analysis.
- If sites of bleeding or a potential bleeding site is found, the bleeding may be controlled by injecting certain medications or by coagulation with electricity, heat or laser.
- Polyps are removed.
    - Polyps are an abnormal growth from the lining of the colon which vary in size from 2-3 millimeters to several centimeters.
    - The majority of the polyps are benign (non-cancerous), but the examining physician cannot always tell a benign from a malignant (cancerous) polyp by its appearance alone. For this reason, removed polyps are sent for tissue analysis. Most colon polyps are completely removed.
    - Removal of colon polyps is an important means of preventing colon cancer.
    - Tiny polyps may be totally destroyed by fulguration (burning), but larger polyps are removed by a technique called snare polypectomy. The doctor passes a wire loop (snare) through the colonoscope and severs the attachment of the polyp from the intestinal wall by means of an electrical current.
    - There is a small risk that removing a polyp will cause bleeding or result in a burn to the wall of the colon, which could require emergency surgery.

Complications:

- Perforation or tear through the bowel wall that may require surgery.
- Bleeding may occur from the site of biopsy or polypectomy. It is usually minor and stops on its own or can be controlled through the colonoscope. Rarely, blood transfusions or surgery may be required.

Other potential risks include:

- Reaction to the sedatives.
- Complications from associated heart or lung disease.
- Localized irritation of the vein where medication was injected. Applying hot packs or hot moist towels may relieve discomfort.

Although complications after colonoscopy are uncommon, it is important for the patient to recognize early signs of any possible complication. The patient should contact the physician if any of the following symptoms are being observed:

- Severe abdominal pain
- Fever or chills
- Rectal bleeding of more than one-half cup. Bleeding can occur several days after polyp removal.

After Care:

- After the test, patients are monitored in the recovery room for 30-45 minutes until the effects of sedation have worn off. They will need to make arrangements for somebody to drive them home (not a taxi) and to stay with them for the remainder of the day because sedation affects judgment and reflexes for the rest of the day. No driving or working is allowed until the next day. It is advised to have somebody stay with the patient for the rest of the day.
- There may be some cramping or bloating because of the air introduced into the colon during the examination. This disappears with the passage of flatus (gas).
- Generally the patient should be able to eat after the endoscopy, but the physician may restrict the diet or activities, especially after extensive endoscopic work (i.e. large polypectomy, control of bleeding, etc.).
- The doctor will discuss with the patient or designated companion any further instructions or need for follow-up.