

## COLONOSCOPIC BIOPSY AND THE PATHOLOGICAL DIAGNOSIS

A common practice among pathologists, both specialists and generalists alike, is the interpretation of gastrointestinal biopsies. The majority of the submitted GI biopsies are received in the form of colonic biopsies for initial screening and/or pre or post-surveillance of disease processes involving the large bowel. In the biopsy procedure, your GI doctor uses a thin, lighted tube (called a colonoscope) inserted into the rectum. The GI doctor will sample areas that appear abnormal and send the resulting biopsy to the laboratory for a pathologist to examine under the microscope to determine if disease is present.

The United States Preventive Services Task Force (USPSTF), which is an independent panel of experts in primary care and prevention, strongly recommends that men and women over the age of 50 be screened for colorectal cancer with a variety of clinical methods including fecal occult blood testing, sigmoidoscopy, or colonoscopy. There are additional clinical guidelines and recommendations for surveillance by other specialty societies. There are also recommendations for patients who have a familiar pattern of colon cancer to be screened at much younger age, and even still some younger patients are now being subjected to genetic testing looking for specific gene aberrational expressions. The main reason for this is that colorectal cancer is the second leading cause of cancer deaths overall after lung cancer. An estimated 146,940 people were diagnosed with colorectal cancer in the United States in 2004. An estimated 56,730 deaths are expected to occur from the disease accounting for approximately 10% of all cancer deaths. (1)

When the pathologist receives the sample in the laboratory, the fragments (biopsies) of tissue are measured and grossly analyzed then subjected to tissue processing through various fixative, alcoholic, and xylene solutions in preparation of submitting it for evaluating under the microscope by a board-certified pathologist. The pathologist looks specifically for established histological diagnostic patterns of various disease processes according to the latest criteria-standards; this includes inflammatory changes as well as the developmental changes seen in pre cancerous or cancerous lesions.

The most common diagnostic findings are in the form of colon polyps. Colon polyps are defined as a hyperplastic polyp, which does not generally require close follow up surveillance, or adenomatous polyp which does generally require close follow-up surveillance evaluation, particularly in those polyps that suggest signs of early cancerous changes. Often times, an experienced pathologist would be required to determine the exact type of polyp you may have or whether your particular polyp may show signs of early cancer development to aid your doctor with the decisions involved in appropriate follow up care.

This is the main reason why our pathologists at DLI place images on our final diagnostic pathology reports, and are available to show live images of your colonic biopsy slides. This is a way of providing quality of service to patients and their gastroenterologists or other physicians who investigate GI diseases. This is also the next best thing to having a second opinion on your diagnostic colonic biopsy material. Of course, we send out the slide for external second opinion on extremely difficult cases or if you the patient or your physician requests a second reading of your diagnostic material. We welcome you to visit us at: <http://www.doctorslabinc.com>

Reference: Annals of Internal Medicine, Aug 17, 2004; vol. 141 (4)