What is High Resolution Anoscopy (HRA)?

High resolution anoscopy is a special method used to examine the lining of the anal canal for cancerous or pre-cancerous changes. It is very similar to colposcopy, a technique used by gynecologists to examine the cervix for cancerous changes since 1925. It may be performed in the clinic without anesthesia, or in the operating room with anesthesia, depending on the situation. The procedure time is about 15 minutes when done in the clinic.

The procedure involves use of a short anoscope to look at the lining of the anal canal. This is a routine part of an examination for most complaints involving the anus. However, simply looking at the lining of the anal canal directly may not show early changes including pre-cancerous tissues or early cancers. During high resolution anoscopy, a microscope is used to magnify the view, and special stains are applied to make changes more visible. If an abnormality is seen, local anesthetic can be placed, and a biopsy (sample) can be obtained for pathologic evaluation.

Who should have HRA?

People that have a higher risk for developing anal cancer should be in an anal cancer screening program. This includes both men and women that are immunosuppressed (HIV infection, transplant patients, long-term steroid use) or have a history of anal dysplasia or cervical dysplasia (women).

A yearly examination should be performed by a physician. The anal canal should be examined using a finger to feel inside the anus and rectum for abnormal growths. Standard anoscopy should be performed to look at the lining of the anal canal. High risk patients should have an anal pap smear yearly to obtain cells from the lining of the anus to be looked at under a microscope. If the findings during the anal cancer screening exam are abnormal, HRA may be recommended.

What if a biopsy is abnormal?

A biopsy may be abnormal because it contains either changes associated with human papilloma virus (HPV, warts), pre-cancerous changes or actual cancers. Pre-cancerous changes are called dysplasia.

Low grade dysplasia (LGD) is mild and is unlikely to progress to cancer. However, it is a risk factor for cancer, and so the possibility of cancer developing in the future is slightly higher for that person. When LGD is present, it is important to continue with regular surveillance examinations.

High grade dysplasia (HGD) is more advanced change in the cells and signals progression toward cancer. If not treated, the risk of developing cancer may be as high as 20%. When HGD is present, it should be treated. If very small, it may have been destroyed during the HRA done in the office. Otherwise, another procedure under anesthesia will be needed to look at the extent of the HGD and to remove or destroy it. After the areas of HGD have been destroyed, it may develop again. Therefore, it is very important to continue with regular HRA examinations to find recurrent HGD early and destroy it before it develops into cancer which can spread.

Invasive cancer of the anal canal requires appropriate treatment. Small growths may be removed. Larger growths are usually treated with a combination of radiation and chemotherapy. Please see our information on Anal Cancer. [link]
Are there any risks?
The main risk associated with HRA is bleeding. This may happen up to two weeks after the procedure. Infection is not a problem since any wounds created during the procedure are left open to heal and do not trap infection inside a closed wound. There may be some discomfort for 1-2 weeks after the procedure.

How do I prepare?
If you have any significant medical problems, a medical clearance report is needed from your primary care doctor. You should call his or her office to arrange for this. If you have heart problems, you may need clearance from a cardiologist who may order additional tests. You will be asked to complete a bowel preparation on the day of surgery to clean out the rectum. This is usually done with an enema. Do not eat or drink anything for at least 8 hours before the procedure and arrange for a ride home if the HRA is being done in the operating room with anesthesia. Follow the preparation directions supplied closely.

What can I expect after surgery?
If the HRA is done in the clinic you will be able to leave right after the procedure and be able to drive yourself. If the HRA is done in the operating room with anesthesia, most patients are discharged from the hospital when the anesthetic has worn off, about three to four hours after the surgery. You must be accompanied home by a responsible adult that you know. Occasionally, patients may be kept overnight for monitoring. Your doctor will prescribe pain medication. You will need to keep your stools soft and passing easily after surgery. This is accomplished by eating a high fiber diet, and taking stool softeners and fiber supplements. Sitz baths should be taken 3 times daily and after bowel movements. A dry gauze pad should be tucked between the cheeks against the wound at the anal opening. If you notice large amounts of blood from the rectum, increased pain or fever you should call immediately. Follow the discharge instructions supplied closely.

Is any follow-up needed?
You will need to follow-up with your surgeon after the operation to check the operative site, to look for new problems, and discuss biopsy results and next steps. Specific recommendations will depend on the results of the pathology examination.

Patient information materials developed in the Section of Colon and Rectal Surgery at Rush University Medical Center. The information contained in this brochure is believed to be accurate; however, questions about your individual health should be referred to your physician.

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