1. What other symptoms are associated with anal carcinoma?

Most patients with this disease present with rectal bleeding. Other symptoms include rectal pain and a sensation of fullness. The diagnosis can be delayed because the bleeding is often ascribed hemorrhoids. One out of five patients do not have any symptoms at all.

2. How common is this disease?

Anal carcinoma is rare, and represents only 1.5% of all cancers involving the gastrointestinal tract.

3. Who is at risk of developing anal carcinoma?

Historically, anal carcinoma was believed to develop as a result of chronic irritation from such conditions as hemorrhoids, fissures or inflammation. This was proven incorrect. Anal cancer is much more common in patients infected with the human papilloma virus (HPV). Other risk factors include cigarette smoking, immunosuppression (for example as a result of organ transplant or infection with the AIDS virus) and certain sexual practices (anoreceptive intercourse).

4. How is anal carcinoma diagnosed?

The diagnosis is established through endoscopy (colonoscopy) and biopsy of the tumor. A biopsy will show a certain type of cancer, called squamous cell carcinoma.

5. Is this condition similar to colon cancer and rectal cancer?

No. Even though anal cancer also involves in the gastrointestinal tract (just like colon cancer and rectal cancer), anal cancer behaves very differently as far as its prognosis, risk of spread to lymph nodes or internal organs, and treatment is concerned.

6. How can someone be sure that the cancer has not spread to other places?

Additional tests are used to make sure that there cancer had not traveled to lymph nodes around the bowel or in the pelvic area, including the groin lymph nodes. Using ultrasound during endoscopy but also CT scans of the abdomen and pelvis are most helpful. Recently the use of PET scanning has yielded excellent results. PET scanning seems to be better at detecting disease that has spread to groin lymph nodes compared to CT scan.

7. What determines the prognosis and the recommended type of treatment?

This stage of the disease, which tells us about the size of the tumor but also about the extent of spread to other places, is the most important factor determining prognosis and treatment.

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8. How is anal cancer treated?

Prior to the mid 1980s, the treatment of choice was abdominoperitoneal resection, a procedure that involves removal of the anus, rectum, draining lymph nodes. This procedure results in a permanent colostomy (" bag") and loss of the natural function of elimination. Nowadays, better results can be achieved by combining radiation therapy to the cancerous lesion and draining lymph nodes with chemotherapy. The patient treated successfully with chemotherapy and radiation therapy will preserve his or her natural function of elimination.

9. How the treatment given?

Radiation is administered Mondays through Fridays for a total of approximately 6 weeks. Chemotherapy is given in to the veins during the first four days of treatment and one month later. Two different drugs are used: 5-FU and Mitomycin C5-FU is infused through a portable, battery driven pump 24 hours a day for a total of four days. Mitomycin C is given as single injection at the beginning of the treatment and as another single injection approximately 1 month later again.

10. What are the side effects from treatment?

Radiation therapy and chemotherapy are likely to cause a decrease in the white blood cell count, increasing the risk of infection. The treatment may also cause anemia and low platelet counts, the latter increases the risk of bleeding. Diarrhea, irritation of the urinary bladder and the skin targeted by the radiation therapy ("radiation burn") are not uncommon. Some side effects may not surface until after the treatment, such as fissures, fistulas or narrowing of the lower part of the bowel, possibly resulting in bowel blockage. There have been several studies trying different chemotherapy regimens in an attempt to decrease the risk of side effects. Some of these regimens accomplished to decrease the side effects, but had unfortunately les success in containing the cancer.

11. Is there any role for surgery in anal cancer?

Very small, slow growing lesions involving the very outside of the anus (anal verge) are amenable to surgery. Chemotherapy and radiation therapy would not be needed in this instance. Surgery (abdominoperitoneal resection, see above) is reserved for patients who do not accomplish a complete eradication of their cancer with chemotherapy and radiation therapy.

12. What is the long-term outcome after chemotherapy and radiation therapy?

The prognosis is generally very good, but depends greatly on the size of the tumor in the anus and also on whether the tumor had already spread to the lymph nodes or distant organs (such as the liver and the lungs) at the time of diagnosis. Regular physical examinations, endoscopies and biopsies and CT scans or PET scans are done to ensure that the cancer is not coming back.

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