



## **CANCER OF THE VULVA**

Cancer of the vulva is not a common disease. There are about 4,000 new cases each year in the United States. Although it can occur in women in the third and fourth decade, it is usually diagnosed in older women. Over 95% of vulvar cancers arise from the squamous epithelium. The remainder are mostly melanomas. The cause of squamous cancer of the vulva is unknown but there is a weak association with Human Papilloma Virus. The most important feature about vulvar cancers is the pre-malignant phase.

### **PRE-MALIGNANT VULVAR CHANGES**

Also called Dysplasia, this pre-malignant phase of vulvar squamous cell cancer has several different names: carcinoma-in-situ, vulvar intraepithelial neoplasia grade III, severe dysplasia, and Bowen's disease. This condition is diagnosed by tissue biopsy and is characterized by a full thickness disorder of maturation of the squamous epithelium. It is usually symptomatic with itching and burning and can be present for years. Dysplasia is usually misdiagnosed as a yeast infection and a multitude of anti-fungal agents will have been prescribed, none of which will have been effective. It is easy to see on examination and will appear as a raised red or white-pigmented patch. A simple biopsy will confirm the diagnosis.

Dysplasia is best treated by excision or by laser evaporation. If a large area is involved and must be removed, then a skin graft can be applied. These pre-malignant conditions are likely to recur after treatment; so continued follow-up is a necessity. Another condition that can occur on the vulva, causing itching and soreness, is lichen sclerosis. It is not a pre-malignant change, but an atrophy of the skin. Lichen sclerosis will not be improved by anti-yeast medications either, but can be diagnosed by biopsy. These two conditions--lichen sclerosis and dysplasia--can be present for years and often misdiagnosed as a yeast infection.

The biggest concern about pre-malignant vulvar changes is that there is usually a long delay in diagnosis. Often these women are not examined properly or the examiner is unfamiliar with the condition and prescribes another course of cream, salve, or ointment. Usually pre-malignant vulvar changes are fully visible and simply need to be biopsied to establish diagnosis.

### **INVASIVE VULVAR CANCER**

Squamous cell cancer of the vulva usually causes pain, soreness, and itching. There is usually an obvious growth on the skin or an ulcerated area. Diagnosis is by simple biopsy. These cancers are usually slow growing and do not spread early. When they do spread, it is usually by way of the lymph nodes. The regional lymph

nodes are located at the top of the thigh in the groin area. Vulvar cancers are staged by a combination of examination and surgery. The TNM staging system is used.

### **TNM STAGING OF VULVAR CANCERS**

- T-0 pre-malignant change
- T-1A a cancer less than 2.0cm in diameter and less than 1.0mm in depth of invasion
- T-1B a cancer less than 2.0cm in diameter but greater than 1.0mm in invasion
- T-2 greater than 2.0 centimeters in diameter
- T-3 involves vagina, urethra, or anus
- T-4 involves bladder, rectum, or pelvic bone
- N-0 no lymph nodes involved
- N-1 lymph node metastases to one groin
- N-2 lymph node metastases to both groins
- M-0 no distant metastases
- M-1 any distant metastases

### **TREATMENT OF VULVAR CANCER**

Vulvar cancers usually are treated by surgery. This consists of a radical excision of the cancer and removal of the regional lymph nodes. If the cancer is small and clearly on only one side, then only that one side may need to be removed. Radical excision means that there must be a good margin of uninvolved tissue removed with the cancer. An acceptable margin is about two centimeters. This will result in some disfigurement if the cancer is larger than two centimeters in size. Large cancers will also require some sort of plastic surgery technique to close the defect. Complications of surgery are closure breakdown with prolonged healing and sometimes a collection of fluid in the groin where the lymph nodes were removed. There may also be leg swelling.

If the cancer is very large and a radical resection would require removal of the anus, rectum, or urethra, then primary treatment can be given by radiation to preserve these vital structures. If there is cancer in the lymph nodes, then the groin as well as the pelvic lymph nodes are irradiated upon recovery from surgery. Often when these cancers are being irradiated, chemotherapy will also be given to increase the effects of the radiation.

The prognosis is generally good. If the lymph nodes are negative, then the chance for a cure is excellent. Even with positive lymph nodes, a significant number are cured.

Vulvar melanoma is no different from melanomas that occur elsewhere on the body. They are unpredictable and can be very aggressive. They are treated surgically if possible. Regional lymph nodes are usually removed at surgery. Melanomas are characteristically black in color, however, there are amelanotic melanomas that are not pigmented and can be confused with the usual squamous cell cancer.

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