



Vulvovaginal Disorders: An algorithm for basic adult diagnosis and treatment

VULVAR PRE-CANCER (Vulvar Intraepithelial Neoplasia VIN)

What is VIN?

Vulvar intraepithelial neoplasia (VIN) is a premalignant skin disorder caused by abnormal cells in the vulvar skin. VIN is not cancer, but may develop into an invasive cancer if not treated. It is divided into two subtypes:

Usual Type VIN is caused by persistent infection with high-risk human papillomavirus (HPV).

Differentiated Type is associated with vulvar skin conditions, mainly lichen sclerosus.

Rare cases that do not fit into these categories are termed "unclassified type."

In the past, VIN was categorized as three grades, VIN 1, 2, and 3. There is no evidence that what had been termed VIN 1 is a cancer precursor requiring treatment. The term VIN is now limited to high-grade squamous lesions (formerly termed VIN 2 and VIN 3) for which treatment is indicated to prevent progression to cancer. Lesions previously referred to as VIN 1 are referred to as condyloma acuminatum.

Who gets VIN?

The incidence of vulvar intraepithelial neoplasia (VIN) 3 is 2.86 per 100,000 women.

Risk factors for *VIN, usual type* are similar to those for vulvar carcinoma and include human papillomavirus (HPV) infection, cigarette smoking, and immunodeficiency or immunosuppression

VIN, differentiated type is associated with vulvar lichen sclerosus. The risk of vulvar squamous carcinoma in women with lichen sclerosus is approximately 5 percent.

What does VIN look like?

Most women present with a single vulvar plaque, ulcer, or mass (fleshy, nodular, or warty) on the labia majora; the labia minora, perineum, clitoris, and mons are less frequently involved.

Multiple lesions are present in 5 percent of cases; thus, all vulvar and perianal skin surfaces, as well as the cervix and vagina, should be evaluated. Cervical pre-cancer, is found in up to 22 percent of patients with a vulvar malignancy.

VIN lesions can be red, white, flesh colored or pigmented, flat or raised. Erosions or ulcers may be present.



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What are the symptoms?

Itching is a common complaint associated with most vulvar disorders, especially when there is an underlying skin problem such as lichen sclerosus.

Vulvar bleeding or discharge, dysuria, or an enlarged lymph node in the groin are less frequently encountered symptoms.

Many women have no symptoms at the time of diagnosis.

How is VIN diagnosed?

A skin biopsy will confirm the diagnosis. A small piece of skin from the affected area is removed after local anesthesia. If VIN is found, a woman may need colposcopy, (examination with magnification and bright light to ensure that there are no associated abnormalities of the cervix, vagina, and anal areas.)

How is VIN treated?

Some areas of VIN will resolve without treatment. However, because some areas may develop into an invasive vulvar cancer, the areas are usually treated. A small area can be removed by surgical excision or laser treatment. Larger areas or multiple areas can be treated with a topical medication called imiquimod. Imiquimod is in a class of medications called immune response modifiers. It treats genital and anal warts by increasing the activity of the body's immune system. It is not known exactly how imiquimod cream works to treat VIN.

FOLLOW-UP

Recurrence of VIN after excision is common. With prolonged follow-up, at least one-third of women develop recurrent vulvar intraepithelial neoplasia, regardless of the treatment modality employed. It is important to keep regular follow-up appointments.