Consider Age and Location to Identify VAIN

Women with VIN, cigarette smokers, and those with a history of having radiation or CIN are at higher risk.

BY ELIZABETH MECHCATIE
Senior Writer

BETHESDA, MD. — An older age, a history of cervical intraepithelial neoplasia, and the presence of multifocal lesions in the upper third of the vagina are among the features associated with vaginal intraepithelial neoplasia, Thomas C. Wright Jr. said at a conference on vulvovaginal diseases.

Vaginal intraepithelial neoplasia (VAIN) is not common, accounting for only 0.4% of intraepithelial lesions of the lower genital tract, according to Dr. Wright, director of obstetrics, gynecology, and pathology at Columbia University College of Physicians and Surgeons, New York.

Women at higher risk include those with vulvar intraepithelial neoplasia (VIN), cigarette smokers, and those who have had radiation therapy. A woman who has had radiation therapy for endometrial cancer and presents with an abnormal Pap smear exemplifies one clinical scenario in which the index of suspicion for VAIN should be high, he noted.

Another typical VAIN case is a postmenopausal patient who has been treated for cervical intraepithelial neoplasia (CIN), even 10 years earlier, often with a hysterectomy, and has been considered cured. She then unexpectedly has a high-grade squamous lesion on cytology, with no lesion on the vagina that is visible to the naked eye.

Some of these risk factors were associated with VAIN in a 2001 study of 121 women with biopsy-confirmed VAIN, which found that 41% smoked, 39% had a history of human papilloma virus (HPV), 22% had undergone surgery for CIN, and 23% had undergone a total abdominal hysterectomy. The mean age of the patients was 35 years, and the majority had VAIN-1, a diagnosis Dr. Wright said he is "very leery" about classifying "as true VAIN lesions."

Most of the patients he sees with VAIN are in their 40s to late 60s. VAIN is rare among women in their 20s and 30s, but when it does occur among younger women, there usually is a history of immunosuppression or CIN, Dr. Wright said.

The sensitivity of cytology in diagnosing VAIN remains uncertain. Most VAIN patients are postmenopausal, raising the question of whether a patient has high-grade VAIN or "severe atrophy, which is causing the cytology to mimic high-grade VAIN," he said at the conference, sponsored by the American Society for Colposcopy and Cervical Pathology.

On cytology, squamous intraepithelial neoplasia and VAIN "look exactly the same," he added. And on histopathology, VAIN looks "exactly the same" as CIN, VIN, or anal intraepithelial neoplasia.

He advised caution about the diagnosis of VAIN-1. "A lot of us are trying not to make low-grade diagnoses of VIN or VAIN," and instead, "classify the majority of these lesions as flat condylomas, because the natural history of these low-grade lesions is not really well characterized," he explained.

It is unclear whether a flat, low-grade appearing lesion in a 60-year-old has any premalignant potential, he added. Low-grade VAIN has many features of a flat condyloma, compared with VAIN-3, which is more clearly a high-grade lesion, he said.

As for the location of VAIN lesions, most are found in the upper third of the vagina, usually contiguous with CIN, if a cervix is present. Most cases are multifocal, often with lesions found in the "dog-ears of the vault after hysterectomy," which makes colposcopy very difficult. Colposcopy is required to diagnose VAIN, but is quite difficult, especially in postmenopausal women who have had a hysterectomy, because it is necessary to look inside the folds and "dog-ears," he said.

VIN may be present as well, so the vulva needs to be carefully examined, said Dr. Wright, adding that "a fair number of patients" will have VIN, CIN, and VAIN at the same time.

On colposcopy, VAIN "frequently appears as slightly raised, acetowhite lesions," which can be subtle, especially in postmenopausal patients who have low estrogen levels, he said.

In the vagina, with high-grade lesions, vascular patterns such as mosaicism in the vagina usually are not present as they are with cervical lesions. These lesions usually are not acetowhite and are identified only after the application of Lugol's solution, he said.

On colposcopy, conditions that can mimic VAIN are congenital transformation zones that extend into the vagina and leukoplakia, which can appear on the vagina, not just the cervix, Dr. Wright said.

Vaginal ulcers or trauma and granulation tissue also can look like VAIN lesions on colposcopy. Inflammation caused by trichomonas, candida, atrophic vaginitis, or radiation atrophy can obscure VAIN lesions, Dr. Wright added.

Treatments for VAIN include excisional biopsy in the office, intravaginal 5-fluoracil, laser ablation or electrofulguration, and partial vaginectomy. Cryosurgery is not used very much now, he added. VAIN-1 usually is not treated aggressively, but followed, except in women suspected of having a higher-grade lesion, such as those who have had a hysterectomy for CIN 2 or 3 or cancer, or a conization for CIN 2 or 3, he said. ■

Presentation of DIV Varies, Etiology Remains Unknown

BY ELIZABETH MECHCATIE
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BETHESDA, MD. — Most experts now believe that desquamative inflammatory vaginitis is not a diagnosis of one condition, but may represent a range of blistering disorders, such as lichen planus, mucous membrane pemphigoid, and pemphigus vulgaris, Hope K. Haefner, M.D., said at a conference on vulvovaginal diseases.

With descriptions in the medical literature dating to the 1950s, the signs and symptoms of desquamative inflammatory vaginitis (DIV) include dyspareunia and exudative, chronic vaginitis, with yellow-watery, purulent discharge that is occasionally blood-tinged, said Dr. Haefner, director of the University of Michigan Center for Vulvar Diseases, Ann Arbor.

Patients with DIV also may have a spotted rash on the vagina and cervix, massive vaginal cell exfoliation, and an increased vaginal pH, she said.

Previous terms used to describe this condition include exudative or membranous vaginitis, and hydrorrhea vaginalis.

DIV can occur at any age, and although it has been considered rare, it is being seen more frequently than in the past.

"Although we don't know what it is … we don't think it is an infectious process," Dr. Haefner said, noting that in studies describing DIV in the 1950s and 1960s infectious organisms were detected in association with DIV but have since been ruled out as a cause.

Other forms of vulvovaginitis caused by trichomonas and other infections can be confused with DIV, as can noninfectious causes of erosive vulvovaginitis, such as lichen planus and graft-versus-host disease, she said. Other noninfectious causes of erosive vulvovaginitis include collagen vascular diseases and a local toxic effect of a drug. The cause also may be idiopathic.

Distinguishing DIV from atrophy can be difficult, since lab findings are similar to those found with atrophic vaginitis, with a nonspecific histology and parabasal cells and many polymorphonuclear leukocytes (PMNs) on cytology. Atrophic vaginitis has serosanguineous or watery discharge similar to that seen with DIV, as well as an elevated vaginal pH, with a thin vagina and red petechiae, Dr. Haefner said at the conference, sponsored by the American Society for Colposcopy and Cervical Pathology.

In diagnosing DIV, consider what is happening with the whole patient, and whether the condition is acute or chronic and focal or diffuse.

Atrophic vaginitis and erosive lichen planus are among the noninfectious conditions that are high on Dr. Haefner's list of differential diagnoses in a patient she suspects may have DIV. Lower on the list are other noninfectious causes of these symptoms, including lichen sclerosus, lupus erythematosus, cicatricial pemphigoid, Stevens-Johnson syndrome, graft-versus-host disease, pemphigus of the mouth and skin, and a local drug reaction such as contact dermatitis.

Like other experts in this area, Dr. Haefner believes that DIV can be an expression of erosive lichen planus, which can have the same wet smear, pH, cytology, and biopsy results. However, not all DIV is lichen planus, she pointed out.

Vulvovaginal symptoms of erosive lichen planus include burning; pruritus; dyspareunia that can be mild to severe, preventing coitus at times; bleeding spontaneously after coitus; and vaginal discharge, she said, noting that erosions are very painful. The difference with lichen planus is that it often is associated with erosive changes in the mouth, with a white reticulated border, adhesions, and atrophy, probably related to T-cell autoimmunity.

"When you see patients with DIV, think about looking in the mouth," she advised.

In lichen planus, erosions may be found in the conjunctivae, external ear canal, esophagus, and anus.

In some cases, histology can help in diagnosing lichen planus, but in Dr. Haefner's experience, this has not been very helpful because lab and cytologic changes are nonspecific and may be similar to those found with atrophic vaginitis.

In diagnosing patients with DIV, she recommended considering what is happening with the whole patient, and whether the condition is acute or chronic and focal or diffuse. Also consider whether it involves the vestibule and/or the vagina and whether the patient has a local estradiol deficiency, oral mucosal or ocular disease, or any iatrogenic topical etiology.

For patients with chronic lichen planus, prophylactic dilation is important, because those patients often present with "shut" vaginas. However, prophylactic dilation is not necessary and would be considered overtreatment if used for all patients. To distinguish DIV from lichen planus, consider a biopsy and immunofluorescent studies to rule in or out some of the conditions in the differential diagnosis.

Because DIV is not a single disease, no one treatment will be effective in all cases. Treatment with 2% clindamycin cream for 2 weeks is a first-line therapy for most patients. Although DIV is not considered an infection, clindamycin is still useful because it has an antiinflammatory effect.

Those who need a second course of treatment may respond to hydrocortisone at a dose of 100 mg/g in a clindamycin 2% emollient cream base. A 5-g applicator should be inserted every other day for a total of 14 doses. This regimen is expensive and is not recommended for a first episode, said Dr. Haefner, who stated that she has no relevant financial relationships with any commercial interest relative to the subject of this presentation. ■