

Androscopy: A Technique for Examining Men for Condyloma

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Genital human papilloma virus (HPV) infections manifest themselves as condylomas. Certain HPV virus types have been documented to cause cervical cancer and have been implicated in vulvar, vaginal, and some anorectal cancers. Cervical cancer, then, is a sexually transmitted disease. Men who carry the virus must be identified and treated if the spread of the disease is to be controlled. Gross visual inspection is inadequate since the viruses with the most oncogenic potential (HPV types 16 and 18) are generally flat and small. Androscopy uses acetic acid staining and magnification to identify the lesions when present. Patient education regarding the potential spread and carcinogenicity of these lesions completes the procedure.

Androscopy (magnified penile surface scanning) is a procedural technique whereby the male genitalia, perineum, and rectum are stained with acetic acid, and the area is inspected with a magnifying lens of some sort for evidence of human papilloma virus infection. The human papilloma virus (HPV) can present as condyloma and has now been established as the cause of cervical, vulvar, vaginal, and some anorectal cancers.¹⁻⁴ Cervical cancer would therefore be considered a sexually transmitted disease. Next to chlamydia, genital warts are the second most common type of venereal disease, with millions of new cases per year. There are certain HPV types, although rare, that have also been associated with penile cancer. The main reason to examine men, however, is that they may serve as a potential reservoir of oncogenic papilloma viruses. Although 56 distinct types have been identified,⁵ not all cause cancer. It is incumbent on the family physician not only to identify female patients with premalignant and cervical cancer changes, but also to identify and treat the male partners and carriers of these viruses.^{6,7}

Various studies have shown that between 50% and 75% of partners of women with abnormal Papanicolaou smear results (cervical intraepithelial neoplasia through carcinoma of the cervix) carry the HPV virus.⁸⁻¹⁰ Contrary to

standard medical opinion, these lesions are generally not visible to the naked eye. In one study, 42% of the warts were detected only after acetic acid staining.⁶ In another study¹⁰ of 51 men, 45 were found to have histologic evidence of condyloma by examination with a colposcope. Only eight of these had grossly visible disease. It is no longer sufficient merely to inspect the penis for obvious condylomata acuminata,⁸ as the acuminate (papilliform) warts, generally types 6 and 11, have a low malignancy potential. The flat warts, generally types 16 and 18, cause 75% of cervical cancer. These lesions are often identified only by close examination under magnification after staining with 5% acetic acid. This article describes the magnified penile surface scanning technique (androscopy), specifies indications for its use, and summarizes the treatment of condyloma.

INDICATIONS FOR ANDROSCOPY

1. The patient has condylomata acuminata on the penis, scrotum, or anus.
2. There is a history of previously treated condylomata acuminata.
3. The female partner has condylomata acuminata or abnormal findings on a Papanicolaou smear (showing koilocytosis, dysplasia, or cervical cancer).
4. A male partner has condylomata acuminata.
5. The patient has a life experience of more than 3 (some say 5) sexual partners (relative indication).
6. There is a history of visitation with prostitutes.

Submitted, revised, July 5, 1989.

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7. Chronic irritation in the perineal area has been noticed either in the patient or the patient's partner.

TECHNIQUE

A plastic spray bottle is used to soak the entire penis, scrotum, and rectal area with 5% acetic acid. Some prefer to wrap the entire penis and scrotum with a 3-in. gauze, then liberally soak the gauze with 5% acetic acid for a minimum of 5 minutes, but this is more time-consuming. In both cases, the acid is allowed to run freely over the anus. Placing a soaked cotton ball over the anus assists in staining this area.

Remove the gauze (if used) and the cotton ball. Inspect the entire anogenital area. Many lesions previously not seen will now be visible to the naked eye as white macules or patches. A magnifying loupe or good hand-held magnifying glass will increase the yield significantly. A colposcope, if available, is ideal.

FINDINGS

Warts will turn white (acetowhite lesions). Areas of inflammation can also turn white. If there is any question, a biopsy of the lesion(s) should be done, with or without 1% xylocaine infiltration, by lifting the area in question with pickups and making a superficial excision with scissors. An alternative is to use Kworkian biopsy forceps or punch biopsy. Oftentimes a large area of the scrotum will turn a superficial white. If the margins of these areas are examined, microscopic white lesions can be identified that on biopsy will prove to be warts. Hemorrhoidal tags will often have small flat warts on them.

Other Lesions

Molluscum will often have a mild acetowhite reaction. They can be identified readily by their umbilicated center. Skin tags and nevi generally do not turn white. At times, they can be confused with condyloma and should be biopsied. Inflammation, including chronic irritation and yeast infections, can also cause an acetowhite stain. Chronic pruritus with lichenification of the skin, however, has also been attributed to the human papilloma virus. When in doubt, do a biopsy.

TREATMENT

As with all warts, the treatment is very difficult, even though these lesions appear small.¹¹ Isolated lesions can be treated with podophyllin, 50% to 80% trichloroacetic acid,

or freezing techniques. These treatments may require three to four applications at weekly intervals. Excision, electrocautery, or laser may be more effective.¹² For large acuminate lesions, laser is the treatment of choice. For diffuse flat lesions and difficult cases, 5-fluorouracil cream applied weekly for 10 weeks has been reported to be 80% effective. Retreatment in the same manner shows an 80% cure rate of the initial failures.^{8,13,14} Alternatively, the cream may be rubbed in until inflammation is experienced. The reaction is allowed to subside, then the area is retreated in the same fashion. Results are reported similar to the protracted treatment.¹⁵ 5-Fluorouracil, however, has not yet been approved by the Food and Drug Administration for treatment of warts and can cause severe inflammatory reactions. Interferon injections have recently been approved, although they are expensive, time-consuming, and are associated with flulike symptom side effects.^{11,16}

5-Fluorouracil cream on a cotton swab three times each week for 1 to 4 weeks is recommended for urethral warts. Some authors⁶ suggest urethroscopy if lesions are seen in the distal urethra, although in practice rarely is urethroscopy done unless recurrent lesions are apparent (personal communication with Alex Ferenczy, MD, Professor of Pathology, Obstetrics & Gynecology, Sir Mortimer B. Davis Jewish General Hospital, McGill University, Montreal, Quebec, August 15, 1988). Similarly, androscopy is recommended for the patient with anal warts. Since this procedure is easily carried out in the office setting, most experts continue to recommend it. Krebs¹⁵ provides an excellent protocol on selecting the various modes of therapy discussed.

All methods of treating warts have been associated with a high rate of recurrence. The incubation period after exposure is 6 weeks to 1 year. The patient should be re-examined 4 to 6 months after the warts have resolved and should wear a condom during intercourse during this entire time.

Ideally, both sexual partners should be treated at the same time. It is not uncommon to document viral DNA in tissue that appears normal even under the scrutiny of staining and magnification in patients previously treated for human papilloma virus infections or in tissue adjacent to the lesions. Often frustrated by the resilience and recurrent nature of the disease, many clinicians recommend no treatment for a monogamous relationship unless symptoms or cosmetic reasons exist.

Patient education is important, and patients should be fully informed of potential spread and possible carcinogenicity of these lesions. They also assume the legal liability of informing future partners of their condition and certainly should wear condoms with any new sexual contacts.

In summary, androscopy is a simple technique. It requires meticulous inspection of the male genitalia to detect condyloma. Family physicians need to examine men at risk

and inform them of the possible long-term consequences if the spread of the disease is to be halted. Treatment of the lesions themselves may be difficult.

ILLUSTRATIVE CASES

Case 1

A 26-year-old man who had first intercourse at the age of 15 years and had had a total of 27 different partners came to the family practice office. He was referred for the treatment of a single large acuminated wart at the base of his penis. On gross visual examination no other lesions were seen other than the obvious one. After staining, one third of the patient's penis turned acetowhite with distinct lesions that were visible without magnification. Multiple scrotal lesions and several small anal lesions were also identified. Biopsies were all positive for condylomata acuminata.

Case 2

A 52-year-old man presented to the family practice office for androscopy since his wife had developed abnormal results on her Papanicolaou smear (class III). Her colposcopic biopsy had showed mild to moderate dysplasia. The patient had first intercourse at 18 years of age and had had a total of only three different sexual partners. The two other than his wife were prior to his marriage. Staining with acetic acid showed a 1-cm white triangular patch above the rectum. Biopsy proved this to be condyloma acuminatum. The last sexual contact outside of marriage occurred while he was in the armed services 30 years earlier. The patient then related that he had had a chronically irritated spot just above the rectum for the past 25 to 30 years.

COMMENT

The term *androscopy* is rapidly gaining acceptance as the label for this procedure. It is used in workshops and conferences throughout the nation, including those sponsored by the American College of Obstetrics and Gynecology. Although it is rarely found in the literature, its practical use certainly outweighs the alternative of *magnified penile surface scanning*.

An interesting aside is that studies have looked at the

male partners of infected women and found that genital warts are highly contagious.⁸⁻¹⁰ Partners of women who have the acuminated warts are likely to also have the acuminated warts (types 6 and 11), while partners of women with the flat warts will, likewise, have flat warts (types 16 and 18). If one group is present, there is a 50% chance that the other group is, too. There is no study reported as yet that looks at the partners of the infected man to determine whether the female partners are similarly infected. Nor has any author recommended that men be primarily screened to identify the carriers of the human papilloma virus.

Treatment can be difficult, and there is hope that a vaccine or oral agent can be developed to eradicate infections. These modalities are felt to be in the distant future.

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