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Meatal Intraurethral Warts Successfully Treated with 5-fluorouracil Cream

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ABSTRACT Condyloma acuminatum relatively rarely involves the urethra, and when it does it is usually only in the most distal portion of the urethra. A number of treatments have been described for urethral condylomas. These treatments are extensive and variable, comprising laser treatment, electrosurgery, cryotherapy, and topical application of cytotoxic agents such as 80% trichloroacetic acid, 5-fluorouracil cream (5-FU), podophyllin, podophyllotoxin, and imiquimod. Laser is still considered to be therapy of choice for treatment of intrauretral condylomata. We present the case of a 25-year-old male patient with meatal intraurethral warts who was successfully treated with 5-FU, after many unsuccessful treatment attempts with laser treatment, electrosurgery, cryotherapy, imiquimod, and 80% trichloroacetic acid.

KEY WORDS: meatal intraurethral warts, 5-fluorouracil (5-FU), electrosurgery

INTRODUCTION

The incidence of genital human papillomavirus (HPV) infection has been constantly increasing over the past 30 years and is considered to be one of the most common sexually transmitted diseases (1). It is estimated that approximately 80% of sexually active people will get infected by HPV at some point in their life (2). Condyloma acuminatum relatively rarely involves the urethra and when it does it is usually only in the most distal portion of the urethra (3). The condylomata can occasionally spread proximally and involve the whole urethra, from the external urethral meatus to the bladder neck and even the bladder itself (4).

CASE REPORT

A 25-year-old male patient presented with warts involving the external urethral meatus and perianal region (Figure 1 and Figure 2). Three months prior to his visit to our Department, a cauliflower-like lesion on urethral meatus had been treated with CO_2 laser by his urologist. The lesion-free period lasted for only three weeks, after which the patient was treated with imiquimod 5% cream. Due to severe flu-like symptoms reactions and extensive erosions at the site of application, the patient discontinued application of imiquimod after 3 weeks. During his first visit to our Department, meatal warts were treated with electrosurgery and perianal warts were treated with a combined therapy consisting of cryotherapy and a podophyllin 20% solution. The follow-up visit 2 months later revealed papillomatous lesions over the orifice of the urethra, which was again treated with electrocosurgery. The pathohistological finding of the lesions was consistent with condyloma acuminatum,

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Figure 1. Meatal intraurethral warts in a 25-year-old man.

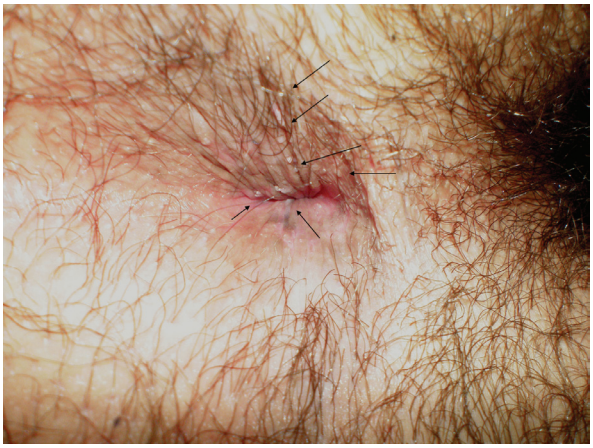

Figure 2. Perianal warts.

and HPV 6 and 11 DNA types were verified by PCR. Peniscopy showed multiple subclinical HPV lesions of the penile shaft (Figure 3) and glans. There was no recurrence of perianal warts. A relapse of condylomata acuminatum of the external urethral meatus was observed in a follow-up visit 5 months later (Figure 4). Cryotherapy was performed, but no improvement was observed after three weeks. Further treatment included 80% trichloroacetic acid. Despite the treatment, meatal warts were still present. A 5-fluorouracil cream (5-FU) was instilled into the urethra twice a week over a period of 5 weeks. On follow-up visits (after 3, 6, and 12 months), no recurrence of intraurethral warts was observed (Figure 5).

DISCUSSION

Urethral involvement in male patients is rather uncommon and appears to be rarely observed in condylomata acuminatum, occurring in just 5% of cases (5). It is usually limited to the distal (3 cm) part of the urethra (involving the meatus), whereas the involvement of the proximal part of the urethra is an even more uncommon phenomenon (3,6). Intraurethral condylomas can be associated with dysuria, urethral bleeding, and infection (7), presenting a significant therapeutic problem because of the difficult approach, frequent relapses, and complications caused by the treatment. The goal of the treatment is to remove the warts and induce wart-free periods. A number of treatments have been described for urethral condylomas. These treatments are extensive and variable, consisting of laser treatment, electrosurgery, cryotherapy, and topical application of cytotoxic agents such as 80% trichloroacetic acid, 5-FU, podophyllin, podophyllotoxin, and imiquimod (6). Our patient was treated with laser treatment, electrosurgery, cryotherapy, imiquimod, 80% trichloroacetic acid, and 5-FU. Despite of the fact that the outcome of the laser therapy in our patient was not successful, it is still considered to be the therapy of choice for treatment of intraurethral condylomata (8). Laser energy can completely vaporize mucosal pathology with minimal adjacent tissue damage, as evidenced by lack of stricture formation and minimal postoperative disability (9). Imiquimod is a immune-response modifying agent that enhances both the innate and acquired immune pathways, resulting in immunomodulating, antiviral, and antitumor effects (10). It can be used as a an adjuvant treatment in combination with standard laser therapy of the urethra to optimize therapeutic efficacy (11). Unfortunately, our patient was unwilling to repeat imiquimod therapy due to previous severe side-effects after imiquimod application. Five- FU is a chemotherapeutic agent that inhibits the cell growth and initiates apoptosis by affecting thymidylate synthase and by direct incorporation into the DNA of the virus (12). Side-effects of 5% FU cream/gel are complications such as meatitis and scrotal irritation (12). Clearance rate after application of 5-FU is 25-95%, and the recurrence rate is 53%

Figure 3. White papules after application of 5% acetic acid compatible with subclinical HPV lesions of the penile shaft.

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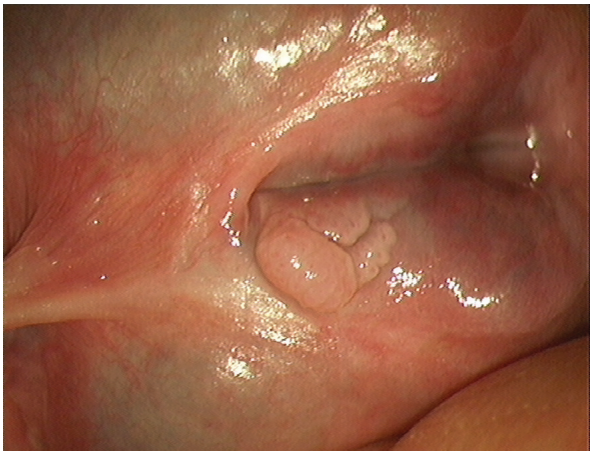

Figure 4. Recurrence of meatal intraurethral warts 5 months after second electrosurgury.

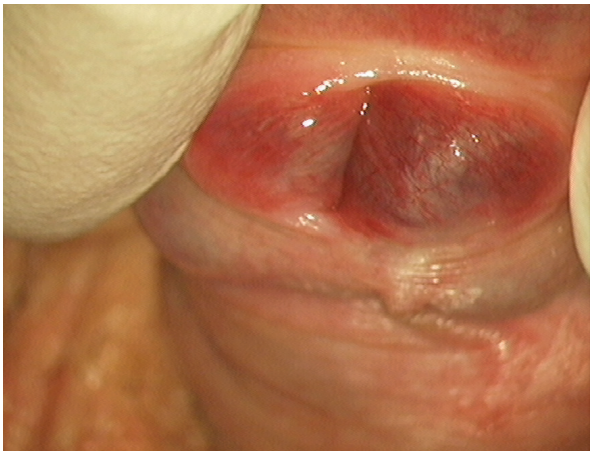

Figure 5. Regression of the meatal intraurethral warts 6 months after treatment with fluorouracil cream.

(13,14). After many different treatment regimens that our patient underwent, only the application of 5FU cream resulted with a successful cure and no disease relapse.

CONCLUSION

Meatal/urethral warts are relatively rare in clinical practice, and the treatment is very demanding and challenging, with no ideal treatment option having been determined thus far. Instillation of 5FU cream as a minimally invasive, safe, convenient, and inexpensive treatment method may represent a very effective option for the complex treatment of intraurethral genital warts.

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