

## Intra-meatal urethral warts: Clinical and dermatoscopic perspectives

Sir,

An immunocompetent sexually promiscuous heterosexual male in his 20s presented with pink lesions at the tip of his penis of 2 months duration. On pressing apart the urethral meatal lips, multiple small papillary masses were seen emerging from the urethral meatus [Figure 1]. Dermatoscopy showed knob-like structural pattern and hairpin and glomerular vascular patterns [Figures 2 and 3]. He was diagnosed with intra-meatal urethral wart and treated with radiofrequency ablation, after ruling out proximal urethral extension through urethroscopy.

Genital wart, caused by human papillomavirus (HPV), is considered to be the most common sexually transmitted disease. Isolated urethral wart is encountered in 0.5%–5% of men with genital warts.<sup>[1]</sup> Retrograde urethral viral infection is rare due to the mucosal immunity.

Male urethral warts can be classified<sup>[2]</sup> as follows:

1. External meatal wart: wart visible at meatal orifice on naked eye inspection which may or may not have further extension into the urethra
2. Intra-meatal wart: wart not visible at meatal orifice on naked eye inspection but visible only by prising open the meatal lips or through a meatoscope and limited to the distal 5 mm of the urethra
3. Distal-urethral wart: warts occurring beyond 5mm of the distal urethra
4. Pan-urethral and bladder warts.

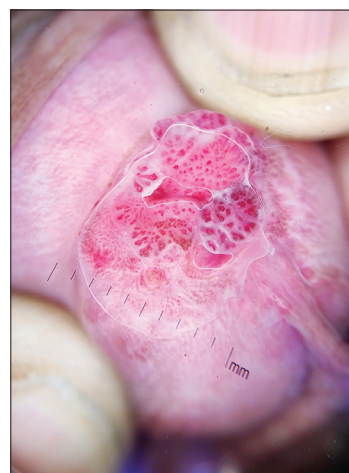
Intra-urethral wart represents an extension of the disease process, namely concurrent or past external genital wart. Other risk factors include trauma during sexual intercourse, genital piercings penetrating the external urethra, and partner with genital warts. The anatomy of the urethral meatus can prevent visualization of the wart by both the patient and the physician, thus delaying their diagnosis and subsequent management. The patients may present with urinary frequency, urgency, urethral bleeding, urinary obstruction, fistula formation, and dyspareunia. Dermatoscopy is a simple noninvasive *in vivo* assessment tool, which can help in the diagnosis of external meatal and intra-meatal warts, more so when the lesions are atypical. Dermatoscopy of urethral warts, similar to genital warts, shows structural patterns-mosaic, knob-like, finger-like or unspecific, as well as vascular patterns-dotted, hairpin or glomerular.<sup>[3]</sup>

HPV is an epitheliotropic virus and can spread along the urethra. Therefore, complete examination of urethral wart includes meatoscopy (using modified Keeler auroscope with an air insufflation attachment) or urethroscopy or urethromeatotomy,<sup>[2]</sup> which may require a urology referral. It can even spread up to the bladder, usually in immunosuppressed patients. Condyloma acuminata has been found to be associated with developing concurrent or subsequent squamous cell carcinoma of the bladder.

Once the extent of the wart is established, treatment can be planned. Electrocautery or radio-frequency ablation and cryotherapy are the preferred modalities of treatment for intra-meatal and distal urethral warts. Podophyllotoxin, lasers, and surgical excision have also been used.



**Figure 1:** Multiple small papillary exophytic warts seen emerging from the urethra on pressing apart the urethral meatal lips



**Figure 2:** Dermatoscopy showing knob-like structural pattern, with each knob-like structure containing several hairpin and glomerular vessels (Contact, polarized dermatoscopy, DermLite DL3N, ×10)



**Figure 3:** Close-up view of dermatoscopy showing regularly arranged hairpin and glomerular vessels (Contact, polarized dermatoscopy, DermLite DL3N, ×20)

Intra-urethral instillation of 5-Fluorouracil<sup>[4]</sup> or Cidofovir<sup>[5]</sup> and systemic retinoid therapy can also be tried. HPV

vaccines could be beneficial as a noninvasive treatment alternative for recalcitrant intra-urethral warts.

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#### Conflicts of interest

There are no conflicts of interest.

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