



GENITAL WARTS

FLAME LECTURE: 171

OOSTERHOUSE 3.7.17

LEARNING OBJECTIVES

- ▶ To explain how genital warts are diagnosed
- ▶ To describe the symptoms and physical exam findings associated with genital warts
- ▶ To discuss management and prevention of genital warts
- ▶ Prerequisites:
 - ▶ None
- ▶ Closely related topics:
 - ▶ FLAME LECTURE 160: INITIAL EVALUATION OF VULVOVAGINAL PRURITIS
 - ▶ FLAME LECTURE 165: VULVAR LESIONS AND DERMATOSES

DEFINITION

- ▶ *Condyloma acuminata* (genital warts) from Human Papillomavirus is a sexually transmitted infection causing small (1-5 mm), papular tan/pink growths on the labia, vaginal opening, and/or anogenital region
- ▶ Most common STI in the US

VIROLOGY



- ▶ HPV is a small DNA virus (8000 base pairs)
- ▶ HPV infects basal keratinocytes in areas of microabrasions
- ▶ Recall that the E6 and E7 oncoproteins inactivate the tumor suppressor genes p53 and pRb, respectively
 - ▶ The degree of their expression is correlated with the type of cervical lesion that develops¹

Severe example
of Genital Warts



EPIDEMIOLOGY



- ▶ 5.6% of adults 18-59 in the US have genital warts
- ▶ More common in women than in men²
- ▶ 90% of genital warts are caused by HPV serotypes 6 and 11
 - ▶ Serotypes 16, 18, 31, and 33 are most associated w/ cervical cancer
- ▶ 60-80% of partners to HPV-positive individuals are affected³
- ▶ Warts can appear weeks to a year after exposure to HPV virus
- ▶ Treating warts may not decrease the chance of spreading the virus
- ▶ Risk factors include: smoking, oral contraceptives, multiple sexual partners, and early coital age¹

CLINICAL PRESENTATION



- ▶ On physical exam, 1-5 mm skin-colored or pink smooth, raised growths seen on labia, vagina, and/or anogenital region
- ▶ Many women with genital warts have no additional symptoms
- ▶ Other possible symptoms include:
 - ▶ Itching
 - ▶ Burning
 - ▶ Tenderness or pain in genital region

DIAGNOSIS

- ▶ Typically a clinical diagnosis, however a definitive diagnosis can be made via biopsy
- ▶ Differential may also include:
 - ▶ Molluscum contagiosum
 - ▶ HSV
 - ▶ Condyloma lata

MANAGEMENT



- ▶ There is currently no treatment to permanently remove HPV in all infected cells
 - ▶ But many infected individuals with healthy immune systems clear virus and warts within 2 years
 - ▶ Recurrence rate of ~20% seen in all patients regardless of treatment method
- ▶ Medical treatments include:
 - ▶ Podophyllin/Podofilox
 - ▶ Trichloroacetic acid
 - ▶ Imiquimod
 - ▶ Interferon injection
 - ▶ Sinecatechins

MANAGEMENT CONT'D

- ▶ Surgical methods include:
 - ▶ Cryotherapy
 - ▶ Electrocautery
 - ▶ Excision
 - ▶ Laser

PREVENTION



- ▶ Gardasil/Gardasil 9 should be offered to girls and boys aged 9-26 to prevent genital warts AND cervical cancer
 - ▶ Gardasil: 6, 11, 16, 18
 - ▶ Gardasil 9-Valent: 6, 11, 16, 18, 31, 33, 45, 52, 58
- ▶ Condoms do not provide complete protection (skin to skin contact)
- ▶ Sexual abstinence or avoidance of HPV-positive partners

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