# **Human Papillomavirus in Athletes**

## **Background**

- 1. Swimmers at higher risk for plantar verruca
- 2. Gymnasts may have verrucae between fingers

### **Pathophysiology**

- 1. Pathology of disease
  - Verruca vulgaris
- 2. Risk factors
  - Direct contact
  - Shared showers and locker room floors

## **Diagnostics**

- 1. History
  - Most lesions are asymptomatic
  - o Can be associated with pruritus, tenderness, burning or pain
  - o Most pts do not know where infection was contracted
  - Hx of possibility of immunosuppression
- 2. Physical exam
  - o Flat warts
    - 3-5% acetic acid solution can be used to delineate lesions
    - HPV associated lesions develop acetowhite appearance
    - Not recommended for routine diagnosis
    - Typically used to guide biopsy

#### **Differential Diagnosis**

- 1. Corns
- 2. Calluses

#### **Therapeutics**

- 1. Certain treatments may exclude immediate return to sport due to recovery time
  - Cryosurgery
  - o Salicylic-acid
  - o Cantharidin

## 2008-2009 NCAA Sports Medicine Handbook: Verrucae

- 1. Wrestlers with multiple digitate verrucae of their face will be disqualified if the infected areas cannot be covered with a mask. Solitary or scattered lesions can be curetted away before the meet or tournament
- 2. Wrestlers with multiple verrucae plana or verrucae vulgaris must have the lesions "adequately covered"

### **Prevention**

1. Wear sandals in locker rooms and showers

#### References

- 1. Adams BB. Dermatologic disorders of the athlete. Sports Med. 2002; 32(5):309-21.
- 2. Klossner D, ed. 2008-2009 NCAA Sports Medicine Handbook; July 2008.
- 3. Adams BB. Transmission of cutaneous infections in athletes. Br J Sports Med. 2000 Dec; 34(6):413-4.
- 4. Buescher SE. Infections associated with pediatric sport participation. Pediatr Clin North Am. 2002 Aug; 49(4):743-51. Review.

Author: Lisa Kafchinski, RN, University of Nevada Reno FPRP

Editor: Carol Scott, MD, University of Nevada Reno FPRP