Herpes Simplex Virus in Athletes

Background
1. General info
   o Also known as Herpes gladiatorum, Herpes rugbeiorum
   o Up to 30% of wrestlers infected

Pathophysiology
1. Pathology of disease
   1. Herpes Simplex Virus 1 and 2
   2. Incidence, prevalence
      o 2003-2004 accounted for 40.5% of skin infections in men's NCAA wrestling
      o One of most common infectious diseases among athletes
         ▪ Wrestling, rugby, football
      o Severe skin infections may require hospitalization
      o Crushed and abraded skin - "mat burns"
      o Close contact
      o HSV has not been isolated from wrestling mats
      o Rugby - forwards are at highest risk

Diagnostics
1. History
   o Primary infection - flu-like symptoms
      ▪ Malaise
      ▪ Fever
      ▪ Chills
      ▪ Headache
      ▪ Weight loss
      ▪ Pharyngitis
      ▪ Lymphadenopathy
      ▪ Conjunctivitis
   o Recurrent infection
      ▪ Prodrome of tingling, burning sensations approximately 6-12 hours
        before appearance of lesions
2. Physical Examination
   o Location: head, neck, upper extremities
   o Early lesions may lack vesicles
   o Late lesions may have erosions
   o Grouped vesicles on erythematous base
   o Concurrent skin infections with other microorganisms may complicate
     diagnosis
3. Diagnostic Testing
   o Laboratory evaluation
      ▪ Tzanck smear
      ▪ Culture
      ▪ Immunofluorescence
Differential Diagnosis
1. If lesions lack characteristic vesicles
   - Tinea corporis gladiatorum
   - Impetigo
   - Acne
   - Atopic dermatitis
   - Herpes zoster
   - Pyoderma

Therapeutics
1. Acute Treatment
   - Infection may exclude competition-wrestling
     - Some sports allow participation in practices if lesions are covered
   - Duration of treatment for return to competition is controversial
     - Acyclovir 200mg PO 5 times a day for 10 days
     - Famciclovir 500mg PO TID for 7 days
     - Valaciclovir 1000mg PO BID for 7 days
2. Long-Term Care and Prevention
   - Complications:
     - Ocular involvement leading to follicular conjunctivitis, blepharitis, uveitis, keratitis, or scleritis
     - Immediate referral to ophthalmologist
     - Prophylactic use for athletes with recurrent herpes:
       - Acyclovir 200mg PO 5 times a day for 7 days
       - Famciclovir 125mg PO BID for 5 days
       - Valaciclovir 500mg PO BID for 5 days

1. Primary Infection
   - Wrestler must be free of systemic symptoms of viral infection (fever, malaise, etc.)
   - Wrestler must have developed no new blisters for 72 hours before the examination.
   - Wrestler must have no moist lesions; all lesions must be dried and surmounted by a FIRM ADHERENT CRUST.
   - Wrestler must have been on appropriate dosage of systemic antiviral therapy for at least 120 hours before and at the time of the meet or tournament.
   - Active herpetic infections shall not be covered to allow participation.”
   - See above criteria when making decisions for participation status.
2. Recurrent infection
   - Blisters must be completely dry and covered by a FIRM ADHERENT CRUST at time of competition, or wrestler shall not participate.
   - Wrestler must have been on appropriate dosage of systemic antiviral therapy for at least 120 hours before and at the time of the meet or tournament.
   - Active herpetic infections shall not be covered to allow participation.
3. Questionable Cases
   - Tzanck prep and/or HSV antigen assay (if available).
   - Wrestler’s status deferred until Tzanck prep and/or HSV assay results complete.
Wrestlers with a history of recurrent herpes labialis or herpes gladiatorum could be considered for season-long prophylaxis. This decision should be made after consultation with the team physician.

Prevention
1. Skin checks prior to competition
2. Do not share equipment or towels

References

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