Herpes Simplex Virus in Athletes

Background

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

Pathophysiology

1. Pathology of disease
    1. Herpes Simplex Virus 1 and 2
2. Incidence, prevalence
    - 2003-2004 accounted for 40.5% of skin infections in men's NCAA wrestling
    - One of most common infectious diseases among athletes
        - Wrestling, rugby, football
    - Severe skin infections may require hospitalization

    Risk factors
    - Crushed and abraded skin - "mat burns"
    - Close contact
    - HSV has not been isolated from wrestling mats
    - Rugby - forwards are at highest risk

Diagnostics

1. History
    - Primary infection - flu-like symptoms
        - Malaise
        - Fever
        - Chills
        - Headache
        - Weight loss
        - Pharyngitis
        - Lymphadenopathy
        - Conjunctivitis
    - Recurrent infection
        - Prodrome of tingling, burning sensations approximately 6-12 hours before appearance of lesions
2. Physical Examination
    - Location: head, neck, upper extremities
    - Early lesions may lack vesicles
    - Late lesions may have erosions
    - Grouped vesicles on erythematous base
    - Concurrent skin infections with other microorganisms may complicate diagnosis
3. Diagnostic Testing
    - 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

2008-2009 NCAA Sports Medicine Handbook: Herpes Virus Infections

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

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