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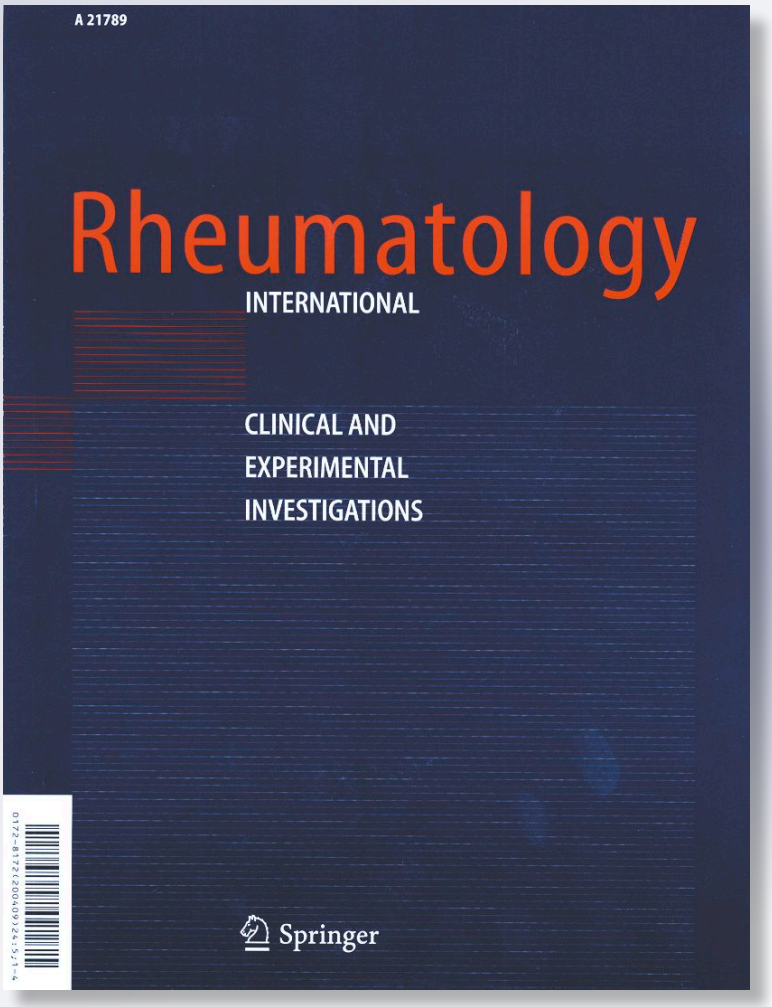

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SHORT COMMUNICATION

The impact of HSV for inflammatory arthropathy patients

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Abstract Herpes simplex virus type 1 (HSV-1), also known as herpes labialis, is the etiologic agent of vesicular lesions of the oral mucosa commonly referred to as "cold sores". HSV-1 can also cause clinical disease in a wide variety of other anatomic locations including the genitalia, liver, lung, eye, and central nervous system. These infections can be severe, particularly in the setting of immunosuppression, such as inflammatory arthropathy patients on Methotrexate ± biological therapies. Here, we highlight the importance of physician awareness of HSV due to its potential impact for rheumatology patients.

Keywords HSV · Inflammatory arthropathy

Dear Editor,

Herpes simplex virus type 1 (HSV-1), also known as herpes labialis, is the etiologic agent of vesicular lesions of the oral mucosa commonly referred to as "cold sores". HSV-1 can also cause clinical disease in a wide variety of other anatomic locations including the genitalia, liver, lung, eye, and central nervous system. These infections can be severe, particularly in the setting of immunosuppression, such as inflammatory arthropathy patients on Methotrexate ± biological therapies.

Once HSV infection has occurred, the virus lives in a latent state in nerve cell bodies in ganglion neurons and can reactivate. The frequency and severity of reactivation is determined by many factors, including immunodeficiency or stress [1]. In contrast to primary HSV-1, recurrent HSV-1 is rarely associated with systemic signs or symptoms except for local lymphadenopathy. The majority of patients are aware of prodromal symptoms that herald the onset of a reactivation episode, such as pain, burning, tingling, and pruritus [2]. These symptoms may last from 6 to 53 h prior to the appearance of the first vesicles [2]. Recurrence patterns can demonstrate great variability from person to person. However, the specific triggers can be quite predictable for each individual patient and lesions tend to recur at the same site. Subclinical shedding is common in both immunocompetent and immunocompromised patients and is probably a key factor in transmitting virus to others.

The initial containment of HSV infection requires intact cellular immunity. Thus, immunocompromised hosts are at risk for increased frequency and severity of recurrent HSV infections. They are also at risk for dissemination of infection, which may include sites that are rarely involved in immunocompetent hosts, such as the lungs or gastrointestinal tract. Visceral dissemination is associated with high mortality. Risk factors for increased severity of HSV infection include history of HIV infection, malignancy, organ transplantation [3], malnutrition [4], pregnancy [5], and advanced age.

In immunocompromised patients, such as inflammatory arthropathy patients on Methotrexate ± biological agents, HSV infection can lead to chronic mucocutaneous herpes simplex infection that may extend into deeper cutaneous layers, leading to easy friability and tissue necrosis. This can be associated with severe pain and atypical-appearing lesions on examination [6]. Mucocutaneous dissemination of HSV-1 should also raise suspicion of acyclovir resistance [7]. Also of note, Kaposi's varicelliform eruption characterized by severe oral–facial HSV can occur in immunocompromised patients, with vesicles and pustules often leading to extensive erosions that complicate recovery.

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Outside of oral complications, immunocompromised patients who have a HSV infection can develop gastrointestinal pathology (HSV esophagitis, which usually presents with odynophagia, dysphagia, or retrosternal chest pain), respiratory pathology (HSV pneumonitis), hepatic pathology (fulminant hepatitis), neurological pathology (HSV encephalitis, aseptic meningitis, autonomic dysfunction, transverse myelitis, benign recurrent lymphocytic meningitis, and Bell's palsy), and ocular pathology (conjunctivitis and/or blepharitis, chorioretinitis, acute retinal necrosis).

Due to the potential serious complications from HSV infection in immunocompromised patients, such as inflammatory arthropathy patients receiving Methotrexate ± biological treatments, physicians need to be aware of the signs and symptoms of HSV infections and the need for quick/appropriate treatment.

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