

Streptococcus pyogenes pericarditis and initiation of guttate psoriasis: a case report

Coppola Maria Gabriella¹, Rainone Carmen², Frongillo Raffaella³, Lugarà Marina¹, Montalbano Simona⁴, Tirelli Paolo¹, Granato Corigliano Fabio¹, De Sena Antonietta¹, De Luca Claudio¹, Petrosino Carmine Pio², Madonna Pasquale¹

¹Internal Medicine Unit, Ospedale del Mare, ASL Napoli1 Centro, Naples, Italy,

²Postgraduate Specialization School of Internal Medicine, University of Naples Federico II, Naples, Italy

³Postgraduate Specialization School in Geriatrics, University of Naples Federico II, Naples, Italy

⁴UOSD Rheumatology, Ospedale del Mare, ASL Napoli1 Centro, Naples, Italy

*Corresponding author: Coppola Maria Gabriella, Internal Medicine Unit, Ospedale del Mare, ASL Napoli Centro, Naples, Italy
E-mail id: gabry.cop@libero.it

Background

Acute pericarditis is recorded in approximately 0.1-0.2% of hospitalized patients and 5% of patients admitted to the emergency department for non-ischaemic chest pain. Rheumatic pericarditis is uncommon following the advent of modern antibiotic therapies. There is strong evidence between *Streptococcus pyogenes* infection and the exacerbation of guttate psoriasis.

Case History

A 20-year old man presented to the Emergency Department with acute chest pain. Twenty days prior he had remittent fever, strep throat and arthralgia. Physical examination on admission revealed swelling of the first finger of the right hand and numerous small patches on the arms, legs and torso. ECG showed sinus tachycardia and echocardiogram demonstrated a mild pericardial effusion. He underwent workup included a positive antistreptolysin O titer for 552 IU/ml (n.v. 0-200) and a negative hepatitis and autoimmune screen. Throat culture was positive for group A *Streptococcus*. A right hand MRI excludes bone involvement. During hospitalization the skin manifestations evolved into a plaque guttate psoriasis on the

legs and arms. Recovery was obtained through therapy with colchicine, ibuprofen and amoxicillin/clavulanic acid started empirically and confirmed by the result of the throat swab. Skin lesions responded well to topical therapy.

Discussion

Different types of infections caused by *Streptococcus pyogenes*, such as Streptococcal angina or pharyngitis, are the environmental factors that contribute to unveil psoriasis in predisposed individuals. Streptococcal infection associated with guttate psoriasis is also documented in the literature. In one study, one hundred and eleven patients with onset or worsening psoriasis associated with streptococcal infection were examined; among these 34 had acute guttate psoriasis, 30 had guttate exacerbation of chronic psoriasis, 37 had chronic plaque psoriasis, and 10 had other types of psoriasis. In this study *Streptococcus pyogenes* was isolated from 17% of all patients examined. This study confirms the strong association between a previous *Streptococcus pyogenes* infection and guttate psoriasis. The molecular pathogenesis of this association has not been demonstrated yet. The early diagnosis and treatment of the Streptococcal infections is essential to prevent all the clinical complications associated with it, such as constrictive pericarditis and septic arthritis.