

Acute Rheumatic Activity in a 49 year old Nepalese adult with established Rheumatic heart Disease: a case report

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Abstract

Rheumatic fever presenting late in adult beyond 25 years of age is a rare but common phenomena and noted in various case reports. The diagnosis of rheumatic activity is based on the same modified Jones criteria for rheumatic fever and rheumatic heart disease. Here we describe a 49 year old male, known rheumatic heart disease with severe aortic regurgitation and post aortic valve replacement who presented with fever and migratory polyarthritis along with history of preceding sore throat 2 weeks prior to this illness. He was managed with high dose of aspirin therapy along with oral penicillin after which he had dramatic improvement in his symptomatology and was discharged with good recovery.

Key Words: Polyarthritis, rheumatic fever, Rheumatic Heart Disease

Introduction:

Acute rheumatic fever (ARF) and its long term sequel, rheumatic heart disease (RHD) is a major health problem in children, adolescents and young adults. Rheumatic fever is a delayed autoimmune response following group A streptococcal infection of the pharynx, which may progress to carditis and lifelong rheumatic heart disease.¹ The disease usually responds favourably to medical management if started early, making prompt diagnosis and treatment crucial. Revised Jones criteria are useful for the prompt and appropriate diagnosis of acute and recurrent rheumatic fever. First-line treatment includes penicillin and an anti-inflammatory therapy, with high-dose acetylsalicylic acid generally recommended for mild-to-moderate carditis, and prednisone for severe carditis. The classical fleeting polyarthritis of the large joints is the most common presentation in adults. The incidence of small joint involvement is higher as well. Joint deformities are rare, and arthritis is acute and transitory, responding well to salicylates.²

Case report:

A 49 year old male presented to the emergency with complaints of multiple joint pains mainly the knee, ankle and wrist joints which was fleeting in nature. It was acute onset and started from the left ankle joint which subsided spontaneously following which he had pain in the elbow joints bilaterally. The inflammatory joint pains was associated with fever. He had a recent history of sore throat 2 weeks prior to this attack when he was evaluated by an ENT specialist and treated with antibiotics. His medical history revealed as a diagnosed case of rheumatic heart disease with severe aortic regurgitation following which he had undergone aortic valve replacement (bileaflet prosthetic valve) in 1999. Following

this he was under follow up with regular PT/INR monitoring with regular dose of oral anticoagulants. At presentation, he was hemodynamically stable with clinically febrile at 101°C and had tender and swollen joints mainly the ankle and knee joints bilaterally. Upon physical examination, his oropharynx was normal. He had no lymphadenopathy, subcutaneous nodules, rash, neck stiffness or peripheral manifestations of endocarditis. No abnormalities were noted in the neurologic and musculoskeletal examination. Cardiovascular examination revealed normal first and second heart sounds with audible prosthetic click. Laboratory evaluation revealed Hb% -11.7 g/dl, raised ESR 26 mm/hr, TLC - 8400 /cu mm, N76L 20 and normal renal function test with Sodium 135 mEq/L and Potassium 4.1 mEq/L. His urine routine was normal and ASO titre > 400 IU/L, and C reactive protein was positive. ECG revealed normal sinus rhythm and chest X-ray was normal. The patient was diagnosed as having rheumatic fever on the basis of the Jones criteria. He had one major criterion (fleeting polyarthritis), and two minor criteria (fever with raised ESR and ASO titre). He was also put on high dose salicylates 60mg/kg/day and oral Penicillin therapy. Within 48 hours of salicylate therapy, there was an improvement in his general status: his arthritis settled, and his temperature subsided. He was later discharged on his regular medications and tapering dose of salicylates and asked for regular follow up. He was also continued on regular secondary oral prophylaxis with penicillin.

Discussion:

Rheumatic fever in adults beyond 25 years of age is not so common however is reported in many case reports till now. We present a 49 year old male with known rheumatic heart disease

who presented this time with rheumatic activity in form of fever and migratory polyarthritis which was treated with high dose NSAIDS. Even though no specific clinical, laboratory, or other test can be used to conclusively confirm a diagnosis of rheumatic fever, the diagnosis is generally made by using the clinical criteria first formulated in 1944 by T. Duckett Jones and modified by the World Health Organization (WHO) in 2001.³ The diagnosis is suggested if in the presence of a preceding GAS infection two major criteria (carditis, chorea, polyarthritis, erythema marginatum, and subcutaneous nodules) or one major and two minor criteria (fever, arthralgia, elevated ESR, elevated CRP, or a prolonged PR interval on the electrocardiogram) are present.

The first-line treatment for rheumatic fever is penicillin with an anti-inflammatory therapy such as ASA or corticosteroids. A course of 500 mg of penicillin V two to three times per day for 10 days is the recommended antibiotic therapy for adults. A 10-day course of either amoxicillin or cephalosporins taken orally are adequate alternatives. Once a diagnosis of rheumatic fever has been made and the acute episode treated, the role of antibiotic prophylaxis is open to debate. Some authors believe that it should be maintained indefinitely in all rheumatic patients; others hold that it is necessary only when there is clinical evidence of carditis; and still others consider that it is totally unnecessary after a patient reaches the age of 25 years. 2 Rheumatic fever as we have observed in adults differs in none of its essentials from the classical rheumatic fever of childhood. The age of the patient

suspected of having this disease is not of great importance when characteristic or suspicious signs and symptoms are present. The greater frequency of rheumatoid arthritis among adults, and the general feeling that acute rheumatic fever is a disease of children will lead to error and missed diagnoses unless a high index of suspicion is maintained. However, we considered the diagnosis of acute rheumatic activity in this patient after fulfilling the Modified Jones criteria and hence were decided to put on lifelong penicillin prophylaxis seeing the incidence of rheumatic activity even at this age.

Reference:

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