

Idiopathic recurrent pericarditis in an adolescent: management with interleukin-1 receptor antagonist

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Recurrent pericarditis is defined as the recurrence of pericardial symptoms after acute pericarditis and associated with various conditions. However in some cases the cause of recurrences remains unknown and called as Idiopathic Recurrent Pericarditis (IRP). The most commonly accepted theory for pathogenesis is that IRP represents an autoinflammatory phenomenon. Herein we describe an adolescent with IRP who is treated with interleukin-1 receptor antagonist (anakinra) and showed dramatic therapeutic efficacy.

Case: A-17-year old boy was admitted to Pediatric Cardiology Department with complaints of chest pain and dyspnea in August 2015. His medical history was unremarkable except for the last 18 months during which he had 8 similar episodes of chest pain that were responsive to NSAIDs and each one lasting for 3-7 days. He had diagnosis of pericarditis and was given colchicine for the last episode for 3 months. However, after cessation of colchicine, his symptoms recurred and admitted to our hospital. Physical examination showed shortness of breath, an increased heart rate of 118 beats/min with deep heart sounds. Laboratory tests showed an increase in acute-phase reactants. Echocardiography revealed moderate pericardial effusion. Viral serology, C3, C4, ANA studies showed no abnormality. Genetic studies testing for familial Mediterranean fever and tumor necrosis factor receptor-associated periodic syndrome were negative. He responded well to an appropriate dosage of ibuprofen, colchicine and discharged without no pericardial effusion. However, after 6 weeks of wellness, his symptoms recurred while receiving colchicine. He needed pericardiocentesis due to a large amount of effusion and prednisolone was started. In November 2015, two weeks after discontinuation of prednisolone, the patient experienced a new episode of pericarditis, characterized by precordial pain, increased levels of acute-phase reactants and pericardial effusion seen on echocardiography. Administration of anakinra was followed by dramatic clinical response and normalization of the laboratory findings within 24-48 hours.

Conclusion: This case has been assessed worth to be reported as the patient was treated with only anakinra. It is concluded that anakinra is to be considered as an important treatment option of IRP.