

Title: Features Distinguishing Juvenile Idiopathic Arthritis among Children with Musculoskeletal Complaints

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Abstract

Background: Musculoskeletal (MSK) complaints are varied ranging from benign self-limited conditions to serious disorders. Juvenile idiopathic arthritis (JIA) is the most common rheumatic disease initially presenting with MSK complaints. Delayed diagnosis and appropriate treatment have enormous impact on long term outcome and disability.

Objectives: This primary objective was to identify features distinguishing JIA among children presenting with MSK complaints. The secondary objective was to describe spectrum of diseases among children presenting with MSK complaints in a large single tertiary center.

Methods: A retrospective chart review of patients evaluated by pediatric rheumatology service at Faculty of Medicine Siriraj Hospital, Mahidol University, Bangkok, Thailand from July 2011 to June 2015 was performed.

Results: Of 531 patients, 285 (53.6%) patients had at least one MSK complaint. Mean age of patients was 9.1 ± 4.1 years. One hundred and sixty five patients (57.9%) were female. Joint pain was the most common MSK complaint (86.3%), followed by limping (33%) and refusal to walk (19.6%). Joint swelling and limited range of motion were found in 146 (51.2%) and 115 (40.4%) patients, respectively. Seventy-three (25.6%) patients were diagnosed as having JIA. The subsequent common diagnosis was Henoch-schönlein purpura (16.1%), followed by reactive

arthritis (14.2%), systemic lupus erythematosus (13.7%) and benign joint hypermobility syndrome (10.4%). Morning stiffness lasting than 15 minutes; odds ratio 9.323 (3.913-22.214), joint swelling on MSK examination; odds ratio 3.379 (1.701-6.714) and duration of MSK complaint lasting than 6 weeks; odds ratio 2.029 (1.103-3.730) were significantly associated with ultimate diagnosis of JIA.

Conclusion: Morning stiffness lasting than 15 minutes is a strong predictor of JIA. Comprehensive history taking and MSK examination would provide clues for making ultimate diagnosis of children with MSK complaints.

Key words: juvenile idiopathic arthritis, musculoskeletal, limping, joint pain, children