

## Management of patients with suspected septic arthritis admitted to Qazvin teaching hospitals (2003-2008)

A. Allami\*

N. Mohammadi\*\*

A. Yavari\*\*\*

M. Asefzadeh\*\*\*\*

\*Assistant Professor of Infectious Diseases, Qazvin University of Medical Sciences, Qazvin, Iran

\*\*Assistant Professor of Community Medicine, Tehran University of Medical Sciences, Tehran, Iran

\*\*\*General physician

\*\*\*\*Associate Professor of Infectious Diseases, Metabolic Diseases Research Center, Qazvin University of Medical Sciences, Qazvin, Iran

### \*Abstract

**Background:** Septic arthritis is one of the most common causes of joint destruction.

**Objective:** The aim of this study was to assess management of definitive or suspected cases of septic arthritis in educational hospitals of Qazvin University of Medical Sciences within 2003 to 2008.

**Methods:** This was an observational study performed based on existing data. The medical files of patients with arthritis in three hospitals were assessed. Patients were hospitalized in orthopedic, rheumatology and pediatrics wards. Intravenous antibiotic receivers for arthritis (more than three days) were analyzed (174 cases) and all necessary information was collected. Data were analyzed by SPSS software using descriptive statistics.

**Findings:** Of total study population, 57.5% of cases were males, 70.6% under the age 12 years, and 85.2% with mono-articular involvement. The most common joint involved was knee in adults (39.6%) and hip in children (47.2%). Trauma was the most common predisposing factor (73%) whereas limitation in movement found to be the most frequent (85.6%) clinical manifestation at the time of admission. Only 57 patients underwent arthrocentesis and positive culture results were found in 8 cases. Essential considerations such as smear, gram staining and assessing the presence of crystals in synovial fluid were not accomplished to an acceptable level yet the less important criteria such as lactate dehydrogenase, protein, and glucose concentrations of synovial fluid were tested for majority of patients. Antibiotic regimen composed of an anti-staphylococcal agent in most cases. Within the first four hours following admission, 54.6% of cases received intravenous antibiotics and 24.7% of cases received IV antibiotic therapy for longer than two weeks.

**Conclusion:** According to inappropriate management of patients with definite and suspected septic arthritis, attempts should be made to consider parameters such as careful history and physical examination, correct duration of antibiotic therapy, and the process of determining the type of microorganisms causing septic arthritis including smear and culture of synovial fluid as well as taking necessary measures to improve the current conditions.

**Keywords:** Septic Arthritis, Patient Care Management, Joint Aspiration, Antibiotic

**Corresponding Author:** Abbas Allami, Infectious diseases ward, Boalisina Hospital, Boali Avenue, Qazvin, Iran

**E-mail:** allami@qums.ac.ir

**Tel:** +98-281-3332931

**Received:** 12 Dec 2009

**Accepted:** 8 June 2010