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Unrecognised Inflammatory Arthritis with Joint Destruction

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Case Report

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Abstract

Rheumatoid arthritis (RA) is the most common and serious form of inflammatory arthritis. Untreated it results in joint destruction and functional impairment. A clinical evaluation remains the cornerstone for evaluating early arthritis; determining whether arthritis is present or not, differentiating between the inflammatory or non-inflammatory disease, and deciding on the aetiology of the arthropathy [1]. Articular symptoms may be the presenting manifestations of many infectious, inflammatory or malignant conditions. There are certain difficulties in making an accurate diagnosis of rheumatoid arthritis in its early stages, a principal problem being the fact that its most defining feature is chronicity, which, by definition, takes time to identify [2]. After 2010 the ACR – EULAR RA classification criteria for RA have been implemented (*This criteria set has been approved by the American College of Rheumatology (ACR) Board of Directors and the European League Against Rheumatism (EULAR) Executive Committee)*, identifying patients with a relatively short period of symptoms who would benefit from early diagnosis, has become more easier, giving practical value towards the commencement of early effective treatment, thus preventing the adverse sequelae of the disease [3].

Keywords: Rheumatoid Arthritis; Infectious Arthritis; Inflammatory Disease

The Aim of the Demonstration

The aim of the demonstration is to report a case of the aggressive rheumatoid arthritis of wrist joints misdiagnosed as infectious arthritis, which has led to the total joint destruction within a period of 3 years.

Case Report

The patient, 57 years old female, presented with complains of severe pain, swelling and functional disorders of the left wrist joint in the beginning of 2013. She started complaining in December 2010 during the flu infection accompanied by conjunctivitis. The flu lasted for a month and resulted in severe complications – otitis media and sinusitis as well as submandibular lymphnode enlargement and calculose parotitis. For diagnostic purposes, 3 submandibular lymph nodes were removed. The histological pattern showed follicular hyperplasia, reactive hyperplasia of lymphoid tissues with rare polymorph cell aggregation. Unfortunately the process of malaise did not stop there, and progressed further. In 2011 both wrists began to ache, the right one less than the left one. For the treatment, she received several antibacterial drugs, including amoxiclav (Amoxicillin trihydrate/Potassium clavulanate) for 30 days. Despite of it no improvement was observed. From 2011 to December 2012 she received several consultations

without clear diagnosis and proper treatment. Musculoskeletal examination was performed in 2013. Clinically, the patient had the hypertrophy of the left antebrachial muscles accompanied by the swelling of the left wrist and the loss of the joint borders, the loss of the main function to the left wrist. Palpatory, the wrist and fingers were painfully swollen and tender on touch. The range of motion, grip, strength and function were affected. MRI was performed on 03.02.2013; it revealed the left wrist destruction with effusion and synovitis [1-3]. According to the laboratory investigation the white cell count and inflammatory markers were raised. The red cell count, biochemical blood parameters were within the laboratory reference ranges. Till then it was not absolutely clear what had caused the effusion and swelling. Therefore it was suggested to have the synovectomy performed. The arthroscopic synovectomy was performed on 21.02.2013. During the surgery the synovial hypertrophy resembling that of the inflammatory arthritis was observed. The biopsy of synovium was taken. Unfortunately the connective tissues between the bones were totally lost. The provisional data from the microbiology and histology tests showed the synovitis of the left wrist without clear data of any bacterial infection. Musculoskeletal utrasonography was performed on 04/03/2013. The right wrist did not have any signs of hypertrophied joint capsula or hypervascularisation. In *proximal interfalangeal joint digiti III and IV dx and sin digiti V* the effusion in B mode was observed, without hyperperfusion or vascularisation. After the sonographic examination of the right foot, the hypertrophied capsula and synovitis without hypervascularity *digiti II dx* was observed, but *digiti V* of the right foot had some signs of the articular irregularity resembling of the initial erosions. The conclusion of the radiologist: multiple synovitis, without diagnostic approvements of rheumatoid arthritis. The consultant in rheumatology advanced the preliminary diagnosis of rheumatoid arthritis, which was affirmed according to the ACR 2010 criteria. Considering the degenerative process in the left wrist arthrodesis of the left wrist was performed with the iliac crest transplant and low compression plate (LCP).At the moment the patient takes mtx 15 mg per week. Unfortunately she has lost the functionality of the left wrist joint and most of her daily activities are performed by her right hand. DASH 18 (The Disabilities of the Arm Shoulder and Hand Symptom Scale); DAS 28 2.81 (disease activity score); HAQ 0.38 (Health Assessment Questionnaire).

Discussion

Rheumatoid arthritis (RA) is a chronic inflammatory disorder that typically affects small and medium-sized joints in a symmetric fashion. (2.) RA affects approximately 0.5-1% of the European and North American adults. Rheumatoid factor (RF) and antibodies to citrullinated peptide (ACPA) have been detected in patients with RA years before the onset of symptoms-evidence that the disease process begins in the preclinical phase, before the onset of symptoms [4]. In our case it was noticed in the lab tests that the ACPA antibodies were without the serologically positive RF. According to the ACR 2010 criteria (that includes ACPA) the consultant in rheumatology affirmed the preliminary diagnosis of rheumatoid arthritis. Unfortunately the delay in confirming the diagnosis and the destruction of the left wrist led to arthrodesis.

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