CASE REPORT

24. Amyloidosis – a rare complication of long-evolving rheumatoid arthritis. A case report

Irina Maria Rusu [1], Rebeca-Ioana Rus[1], Maria-Cristina Simian[1], Daria Șerbănescu[1], Laura Muntean[1]

[1] "Iuliu Haţieganu" Univeristy of Medicine and Pharmacy, Cluj-Napoca, Romania

https://www.youtube.com/watch?v=hJIcIJ1w8oM&list=PLhqNq3xJClbafO0Y5bvBcgMmXpgzJxd44&index=5&t=11380s

Background: Amyloidosis consists of a diverse spectrum of medical conditions, defined by the accumulation of fibrillar proteins in a beta-sheet configuration in different tissues. Reactive amyloidosis (AA), previously known as secondary amyloidosis, can appear as a complication of chronic inflammatory diseases, such as rheumatoid arthritis. In present times, the use of biological therapies has decreased its prevalence, but it remains a considerable threat for patients, as its main target is the kidney, with progression towards renal failure. Light chain amyloidosis (AL) is a primary form of the disease, involving plasma cell clones in the bone marrow, and has been reported in patients with rheumatoid arthritis, constituting an important differential diagnosis. Herein, we present the case of AA amyloidosis in a patient with a long evolution of rheumatoid arthritis, highlighting its diagnostic difficulties.

The Case: A 55-year-old woman presented to our clinic with mild arthritic pain in the hands, fatigue and hyperpigmentation on the dorsal side of her forearms, associated with itching. Rheumatoid arthritis is present in her medical history, having been diagnosed 15 years prior. Her medication included Metotrexate for three years, interrupted due to digestive intolerance, followed by Sulfasalazine to the current presentation. Physical exam highlighted obesity, the skin lesions on the forearms and a positive Gaenslen sign bilaterally. Biologically, an important inflammatory syndrome was discovered, alongside a very high rheumatoid factor (FR). These have been persisting for a number of years, prompting several past investigations to identify its cause. A serum protein electrophoresis with immunofixation was negative for monoclonal bands, but serum light chains kappa and lambda were slightly elevated. Histopathological analysis of a biopsy from abdominal fat revealed apple-green birefringence in polarized light with Congo red staining, leading to the diagnosis of amyloidosis. Infection and cancer were ruled out after extensive investigations. Taking into account the lack of renal manifestations, the relatively poorly controlled rheumatoid arthritis and the very slight elevation of serum light chains, this was interpreted as reactive amyloidosis. Treatment was promptly switched to Leflunomide and the patient will be evaluated for treatment with anti-TNF biological therapies.

Conclusion: Amyloidosis can constitute a life-threatening complication to long-evolving chronic inflammatory diseases, such as rheumatoid arthritis. As no therapies that target amyloidosis specifically are available as of yet, management involves strict control of the underlying inflammatory condition, making early detection critical. This case highlights the diagnostic challenge this rare complication poses, as AL amyloidosis might also be considered, and the importance of controlling rheumatoid arthritis both clinically and biologically, in order to prevent its development.

Table 1: Laboratory Results at First Day of Hospitalization

Parameters	Unit	Value	Reference values
C-reactive protein	mg/dL	8.37	< 0,5
Rheumatoid Factor	UI/mL	140.2	< 14
Erythrocyte sedimentation rate	mm/h	67	< 30
Serum light chain lambda	mg/L	28.4	5.71 - 26.3
Serum light chain kappa	mg/L	34.62	3.3 – 19.4

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