Messages from the history of polymyalgia rheumatica

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Dear Editor,

Polymyalgia rheumatica (PMR) and elderly-onset rheumatoid arthritis (EORA) are the most common inflammatory rheumatic disease in older adults, and a further future increase in their incidence is predicted due to global aging [1]. At first presentation, PMR and EORA may have similar manifestations to make problematic a correct differential diagnosis. In addition to the acute involvement of the shoulder joints, characteristic features of both diseases are morning stiffness for > 45 minutes, raised inflammatory markers, and a good response to low doses of prednisone. Constitutional manifestations can be present in both EORA and PMR [2].

The first descriptions of PMR are traditionally attributed to Bruce. In 1888, he reported five patients aged 60 to 74 years whom he had visited at the Strathpeffer spa in Scotland, and suggested that they might be suffering from a new disease different from gout and rheumatoid arthritis (RA) whose characteristics were severe involvement of the girdles, a systemic reaction with constitutional manifestations, and complete curability after a long time. He called this new disease senile rheumatic gout. However, it is worth highlighting that only in cases 3, 4 and 5 were some clinical manifestations typical of PMR described. In contrast, cases 1 and 2 were less clear to consider PMR as the most likely diagnosis: in particular, case 1 regarded a 60-year-old female patient complaining of frank polyarthritis [3].

About 50 years had to pass before similar cases were reported. In particular, in 1945 Meulengracht [4] described two patients suffering from shoulder pain, prolonged fever, loss of weight, and a greatly increased erythrocyte sedimentation rate (ESR), and diagnosed "periarthrosis humeroscapularis". In addition, seven years later, he discussed the course and prognosis of 78 patients affected with periarthrosis humeroscapularis with special regard to the 18 with general symptoms, and highlighted how complete curability was always possible in this specific subset after 6–12 months, on average [5]. Also in 1945, Holst and Johansen [6] reported what in my opinion should be considered the best description of patients with PMR up to that time. Indeed, they described five female patients who suffered from sudden aching and pain in the shoulders, arms, and hip regions. Pain was present only or made worse with movement and shoulder motion was limited. The authors stated that pain arose from the extra-articular soft tissues, and therefore they gave this disease the name of peri-extra articular rheumatism. Low-grade fever were present for weeks or months in three patients, and raised ESR was present in all. After a year or more, their manifestations improved. No other disease appeared during follow-ups.

In 1951 at the second European Congress of Rheumatology in Barcelona, Kersley in a presentation entitled "A myalgic syndrome of the aged with systemic reaction" reported 13 patients (median age 71 years) who presented with typical pain and stiffness of the girdle, severe constitutional manifestations, and a high increase of inflammatory markers. Kersley first reported the successful use of steroids and typical negative muscle biopsy. He hypothesized that these patients suffered from a non-arthritic rheumatoid syndrome [7].

In the same meeting proceedings, we find Porsman's presentation. He discussed 29 patients older than 60 years who complained of aching in the proximal joint areas lasting just over one year, without swelling or radiological changes [8].

Bagratuni [9] re-proposed the concept of a prodromal non-arthritic phase of RA. However, among the 50 patients of his case series only two progressed to frank RA, whereas most patients improved with time [9, 10].

In 1957, Barber [11] presented 12 patients (10 F, 2 M; ages at onset ranging from 46 to 68 years) with a follow-up lasting from one to ten years. All 12 patients complained of sudden and long-lasting widespread muscular pain, and some of them were initially diagnosed with "fibrositis". None of them had had swollen joints; constitutional manifestations were uncommon; nine of them

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had a fast response to corticosteroids and three had almost complete relief with phenylbutazone; the prognosis was always good with complete or prolonged remission. He proposed the term "polymyalgia rheumatica", underlining the concept of a myalgic disease different from RA, and that non-aged patients could suffer from this disease.

Finally, in 1960 Gordon [12] used this term in a report of 21 patients and 140 previous cases he found in published literature. Some believe that the success of the term proposed by Barber [11] was due to this article, which indeed had a wide resonance [13].

In conclusion, even if EORA is the most common confounding disease, history shows that PMR and EORA are not the same entity.

I hope that this point of view and conceptual approach will be put aside definitively.

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