What is the starting dose of steroid prescribed by rheumatologist in the management of polymyalgia rheumatica?

Corticosteroids are the standard treatment prescribed in the management of polymyalgia rheumatica (PMR); due to the lack of quality studies, there is, however, a great variability in the initial dose prescribed.¹ The European League Against Rheumatism/American College of Rheumatology (EULAR/ACR) recommendations, published in 2015, have proposed starting treatment with an initial dose of between 12.5 and 25 mg prednisone equivalent daily.² The present study sought to further define the initial dose of corticosteroids prescribed by rheumatologists working in private practices or in university hospital and to compare it to the EULAR/ACR recommendations.

A cross-sectional study was conducted among rheumatologists of the Auvergne region. For each patient with PMR seen at consultation, rheumatologists were invited to collect the following data: length of time since diagnosis of PMR; starting dose of corticosteroid prescribed; weight, age and sex of the patient. Both univariate (correlation coefficient, Student's t-test, and χ^2 test) and multivariate analyses (linear regression) were performed using Stata software (version 13, StataCorp, College Station). For ethics purposes, the study was approved by the CNIL (French Data Protection Authority) (dossier no. 16.292).

Overall, 138 patient records were received, 97 of which from 15 rheumatologists working outside of the rheumatology department and 41 from the rheumatology department. The records concerned 63 men and 75 women, aged 73.4 ± 8.5 years old. The mean length of time since diagnosis of PMR was 2.5 ± 3.1 years; the starting daily dose of corticosteroids prescribed was 19.2 ± 7.7 mg. This dose did not differ for the patients whether they were seen at the rheumatology department (19.9 ± 10.8 mg) or outside of the rheumatology department (18.9 ± 6.1 mg). The dose was revealed inferior to 12.5 mg in three patients (2.2%) and superior to 25 mg in 16 patients (11.9%) (figure 1). In univariate analyses, the dose was not correlated to patient age ($r = -0.01$; $p = 0.92$), weight ($r = 0.10$; $p = 0.28$), in or outside of the rheumatology department, but was correlated to the length of time since diagnosis ($r = 0.22$; $p = 0.01$). Following multivariate analyses, the correlation to the length of time since diagnosis remained significant ($p = 0.009$). The mean corticosteroid dose was 20.8 ± 9.5 mg before 2016 (prior to the EULAR/ACR recommendations) and 17.5 ± 5.5 mg after 2016 ($p = 0.02$). Following 2016, fewer patients received an initial dose

that was inferior or superior to that of the recommendations (6/73 (8%) vs 13/62 (21%); $p = 0.03$).

The corticosteroid dose prescribed is comparable to that of a PMR cohort followed-up in the USA (16 ± 7.1 mg).³ In a population-based study conducted in the UK, 75% of patients received a dose of between 8 and 21 mg.⁴ These results cannot be unreservedly extrapolated to PMR cases managed by all rheumatologists and above all by family physicians.

CONCLUSION

The starting dose of corticosteroids prescribed by the rheumatologists of the Auvergne region is perfectly in line with the EULAR/ACR recommendations in 86% of cases and in 92% of cases since the 2015 publication of the recommendations.

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Figure 1 Initial dose of corticosteroids prescribed to patients suffering from polymyalgia rheumatica.