Lack of Hyperhomocysteine in Relapsing Polychondritis: A Case Series

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Relapsing polychondritis (RP) is a rare disease associated with autoimmunity and presents chondritis of the nasal and auricular cartilages and with tracheal/bronchi involvement. Other systemic involvements include uveitis, hearing involvement, glomerulonephritis, and heart disease.[1] Hyperhomocysteinemia has been described in autoimmune, including lupus, rheumatoid arthritis, Sjogren syndrome, and others.[2,3] Although no previous study has evaluated the frequency of hyperhomocysteinemia in RP. The objectives of this study were to evaluate the frequency of hyperhomocysteinemia in patients with RP. Written informed consent was obtained from all participants who participated in this study.

This work included 3 RP patients who fulfilled the RP criteria of McAdam. The main clinical, demographical, and laboratory data were obtained from the patient charts. The exclusion criteria were supplementation with folic acid and vitamin B12 for 6 months before the entry. Homocysteine levels were measured by a chemiluminescence assay (Roche Diagnostics), and the normal values varied from 5.7 to 15 µmol/L. The variables were analyzed using the JASP statistical program. The results were expressed as mean ± SD, median (range), or percentages according to categoric or non-categoric variables. Statistical significance was set as $P < .05$.

The median age of all RP patients was 41 (41-51) years old; all were female and Caucasian. The disease duration was 4.7 ± 3.0 years. All patients received or were under prednisone. Comorbidities were not seen in this sample. The erythrocyte sedimentation rate was 37 (20-54) mm/first hour, and C-reactive protein was 8.75 (3.5-48) mg/dL. The mean value of homocysteine was 11 (10.79-12) ng/mL. Importantly, no patient had hyperhomocysteinemia (Table 1).

This study has demonstrated that no RP patients had hyperhomocysteinemia. This frequency is different from that found in other rheumatic diseases. In fact, HH has been described in several rheumatic conditions, including lupus, rheumatoid arthritis, osteoarthritis, gout, and in primary vasculitides such as polymyalgia rheumatic and giant cell arteritis and also in Behçet's diseases.[2,3]

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Table 1. Data from RP Patients and Their Laboratory Features

Data	Results
Mean age, years	41 (41-51)
Female gender, %	100%
Disease duration, years	4.7 ± 3.0
Median ESR values (range)	37 (20-54) mm/first hour
Median CRP values (range)	8.75 (3.5-48) mg/dL
Mean homocysteine values	11 (10.79-12) ng/mL
Hyperhomocysteine, %	0.0

CRP, C-reactive protein; ESR, erythrocyte sedimentation rate.

The study has some limitations. The small number of patients is a limitation. However, it is usually the sample size of the studies on RP for a very rare disease. Therefore, our results must be confirmed in more extensive future works.

In conclusion, homocysteine levels are normal in RP and therefore seems do not have a role in the vascular events of RP. Other factors are probably associated with this condition.

Informed Consent: Written informed consent was obtained from all participants who participated in this study.

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