A STUDY OF NOVEL INFLAMMATORY MARKERS IN BEHCET'S DISEASE WITH OCULAR INVOLVEMENT

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Introduction

Only few studies have investigated the use of systemic inflammatory markers to reflect disease activity of Behçet's disease (BD) such as C-reactive protein (CRP), CRP/albumin ratio (CAR), neutrophil to lymphocyte ratio (NLR), platelets to lymphocytes ratio (PLR), lymphocytes to monocytes ratio (LMR), and mean platelet volume (MPV).

Objectives

The purpose of our study was to explore these markers as indicators of disease activity in BD with ocular involvement.

Patients and methods

This study included 92 patients with ocular involvement of BD seen from January 2010 to December 2023 in the internal medicine department of the university hospital Mohammed VI of Marrakech.

Laboratory tests were conducted to measure complete blood count, CRP, CAR, NLR, PLR, LMR, and MPV during the active phase and after resolution. The activity of ocular involvement was determined by BD ocular attack score 24 (BOS24). The results measured during the two phases were assessed and compared.

Results

Ninety-two patients (163 eyes) were enrolled with a male/female ratio of 2,3. The most common ocular findings were retinal vasculitis (45,4%) and intermediate uveitis (39,9%).

Statistical analysis showed significant variations between active and inactive phases of the disease.

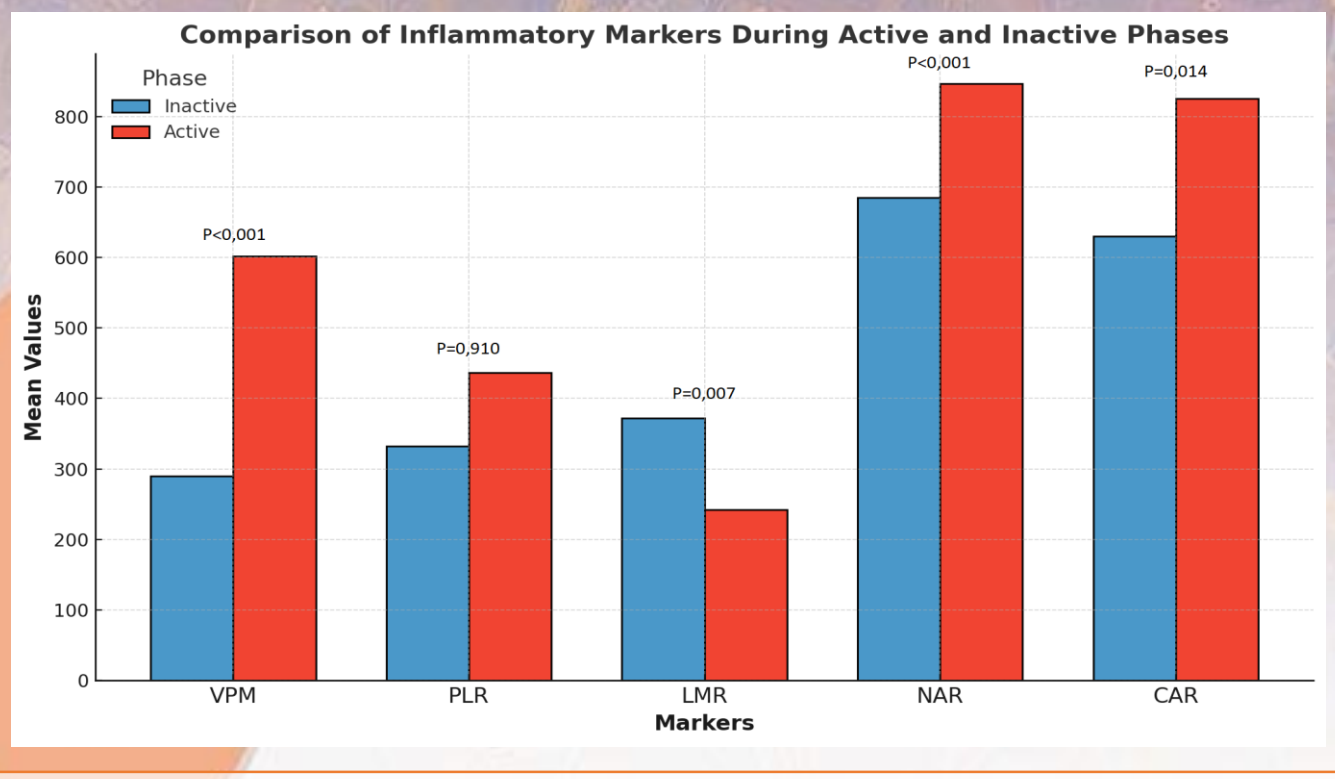
MPV and NAR demonstrated highly significant changes with p-values less than 0.001.

Similarly, LMR and CRP levels showed significant differences (p=0.023 and p=0.007, respectively).

The CAR also had a statistically significant variation (p=0.014).

Conversely, PLR and NLR did not show a significant change (p=0.910 and p=0,222, respectively).

Figure 1: Paired bar chart of the infammatory biomarkers measured during the active phase with those measured after resolution



Conclusion

The blood indices CRP, NAR, CAR, NLR, PLR, LMR, and MPV are potential inflammatory markers that can be used to evaluate disease activity in patients with ocular involvement of BD.