

Cardiovascular risk in psoriatic arthritis: should we focus on hypertension and diabetes only?

Sirs,

We carefully read the study by Favarato *et al.* regarding the really interesting issue of cardiovascular risk in patients with psoriatic arthritis (1). The authors conclude that increased cardiovascular risk in these patients can be primarily attributed to the co-existence of hypertension and/or diabetes. However, we believe that some additional issues should be considered when addressing this important topic.

Firstly, excess cardiovascular risk in patients with rheumatic diseases has been primarily studied in patients with rheumatoid arthritis (RA) (2). Based on accumulating evidence in RA, The European League Against Rheumatism (EULAR) has published recommendations (3) regarding cardiovascular risk management in RA and other inflammatory arthritides, including psoriatic arthritis. Clinical application of these recommendations has proven effective in re-classifying patients into higher cardiovascular risk groups (4). Major EULAR recommendations for cardiovascular risk reduction include smoking cessation, minimal use of corticosteroids and the preferable use of statins. Interestingly, a most recent study on patients with psoriatic arthritis links excess cardiovascular risk with smoking and high atherogenic index (total cholesterol/HDL) (5). However, these factors are ignored by the authors of the present study and are not included in the present study analysis.

Secondly, another important issue is the possible role of immunosuppressive anti-inflammatory treatment in cardiovascular risk reduction. Although such supportive evidence exists in patients with RA (2), little is known regarding the role of disease-modifying-drugs or biologics in cardiovascular risk reduction in patients with psoriatic arthritis (5). The present observational study showed no difference in cardiovascular disease prevalence among different therapeutic options. Nevertheless, it would have been interesting to evaluate the role of

all studied factors in a multivariate model of cardiovascular disease prediction.

Thirdly, essential hypertension *per se* represents a prothrombotic state characterised by increased platelet activation (6), macro (7) and micro-vascular (8) alterations. A most recent study has shown that hypertension enhances the pre-existing atherogenic vascular remodelling in patients with psoriatic arthritis (9). Blockers of the renin-angiotensin system have shown a favourable effect on increased platelet activation (6), impaired arterial stiffness (7) and changes in coagulation and fibrinolysis (10) observed in patients with hypertension. Based on their favourable effects, these antihypertensive agents have been recommended as preferred treatment options in patients with psoriatic arthritis by the EULAR recommendations (3). In spite of this fact, the present study does not provide relevant information on anti-hypertensive treatment and hypertension control.

In conclusion, the study by Favarato *et al.* (1) emphasises the important role of hypertension and diabetes management in order to reduce cardiovascular risk in patients with psoriatic arthritis, lacking significant data on cardiovascular risk assessment and management in the patients studied. Thus, further well-designed studies taking into consideration the aforementioned issues are warranted in order to spherically address the important topic of cardiovascular risk management in psoriatic arthritis.

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References

1. FAVARATO MH, MEASE P, GONCALVES CR, GONCALVES SAAD C, SAMPAIO-BARROS PD, GOLDENSTEIN-SCHAINBERG C: Hypertension and diabetes significantly enhance the risk of cardiovascular disease in patients with psoriatic arthritis. *Clin Exp Rheumatol* 2014; 32: 182-7.
2. GKALIAGKOUSI E, GAVRIILAKI E, DOUMAS M, PETIDIS K, ASLANIDIS S, STELLA D: Cardiovascular risk in rheumatoid arthritis: pathogenesis, diagnosis, and management. *J Clin Rheumatol* 2012; 18: 422-30.
3. PETERS MJ, SYMMONS DP, MCCAREY D *et al.*: EULAR evidence-based recommendations for cardiovascular risk management in patients with rheumatoid arthritis and other forms of inflammatory arthritis. *Ann Rheum Dis* 2010; 69: 325-31.
4. ROSALES-ALEXANDER JL, SALVATIERRA J, LLORCA J *et al.*: Cardiovascular risk assessment in rheumatoid arthritis: impact of the EULAR recommendations on a national calibrated score risk index. *Clin Exp Rheumatol* 2014; 32: 237-42.
5. PAPAGORAS C, MARKATSELI TE, SAOUGOU I *et al.*: Cardiovascular risk profile in patients with spondyloarthritis. *Joint Bone Spine* 2014; 81: 57-63.
6. GKALIAGKOUSI E, GAVRIILAKI E, YIANNAKI E *et al.*: Platelet activation in essential hypertension during exercise: pre- and post-treatment changes with an angiotensin ii receptor blocker. *Am J Hypertens* 2014; 27: 571-8.
7. GKALIAGKOUSI E GE, NIKOLAIDOU B, TRIANTAFYLLOU G, DOUMA S: Exercise-induced pulse-wave velocity changes in untreated patients with essential hypertension: the effect of an angiotensin-receptor antagonist. *J Clin Hypertens* 2014; J Clin Hypertens (Greenwich). 2014; 16: 482-7.
8. TRIANTAFYLLOU A, DOUMAS M, ANYFANTI P *et al.*: Divergent retinal vascular abnormalities in normotensive persons and patients with never-treated, masked, white coat hypertension. *Am J Hypertens* 2013; 26: 318-25.
9. PUATO M, RAMONDA R, DORIA A *et al.*: Impact of hypertension on vascular remodeling in patients with psoriatic arthritis. *J Hum Hypertens* 2014; 28: 105-10.
10. GAVRIILAKI E, GKALIAGKOUSI E, NIKOLAIDOU B, TRIANTAFYLLOU G, CHATZOPOULOU F, DOUMA S: Increased thrombotic and impaired fibrinolytic response to acute exercise in patients with essential hypertension: The effect of treatment with an angiotensin II receptor blocker. *J Hum Hypertens* 2014 Mar 13 [Epub ahead of print].