

Med Princ Pract 2016;25:583–584  
DOI: 10.1159/000448954

### Aortic Stiffness and Inflammation: Dyslipidemia or Matrix Metalloproteinases?

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Dear Editor,

We read with great interest the article by Koseoglu et al. [1] investigating the aortic elastic properties and the myocardial performance index in patients with lichen planus. They reported that the parameters reflecting the myocardial performance index and aortic stiffness were augmented while those of aortic strain and distensibility were attenuated in patients. They also pointed out that as the duration of the disease lengthened the condition of the aorta and myocardium worsened. Therefore, this study has contributed to the field of cardiovascular diseases associated with inflammation. Inflammation is frequently discussed as a potential major mechanistic contributor to atherothrombosis, and the measurement of inflammatory markers could potentially improve risk stratification beyond current global risk assessment [2]. Indeed, inflammation contributes to all stages in the pathogenesis of atherosclerosis from plaque formation to the acute atherothrombotic event and the myocardial damage following ischemia [3]. Koseoglu et al. [1] further suggested that inflammation would lead to disruption in aortic elastic properties, probably through the degradation of aortic collagen and elastin by means of cytokines in patients with lichen planus. Although they also suggested that dys-

lipidemia as another risk factor leading to aortic stiffness, patients with lichen planus and the control group differed just with respect to high-density lipoprotein cholesterol. Thus, it would be helpful to learn whether high-density lipoprotein cholesterol was independently associated with aortic stiffness – how many patients had metabolic syndrome in each group? The association between lichen planus and chronic hepatitis C virus (HCV) infection has been described in several epidemiological studies with conflicting data due to study design and country-specific prevalences of the HCV burden [4]. Many agree to routinely check for HCV infection in patients with a clinically and histologically confirmed diagnosis of lichen planus disease [5]. Therefore, what was the prevalence of HCV infection in the study population? Answering these questions would aid the understanding of what is really behind the aortic stiffness.

#### References

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## Reply

### Chronic Inflammation Could Be the Dominant Predictor of Impaired Aortic Properties in Patients with Lichen Planus

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Dear Editor,

We would like to thank to Tekin et al. [1] for their special comments about our recent paper. As outlined in their letter, the association between lichen planus and chronic hepatitis C virus (HCV) infection has been described in several epidemiological studies [2]. In our study, we reanalyzed the data for screening HCV status and found that only 1 patient with lichen planus and none of the control subjects had HCV infection.

We did not evaluate the relationship between lichen planus and metabolic syndrome because it was not one of the aims of the study. However, as is apparent in the tables, the presence and the duration of lichen planus were not independent predictors of aortic properties. Body mass index, hypertension, high-density lipoprotein cholesterol and triglycerides were independent predictors of impaired aortic properties. The accumulation of these compo-

nents might be a predictor of aortic properties. However, since we did not measure the waist circumferences of patients, the diagnosis of metabolic syndrome was not a consideration of our study.

#### References

- 1 Koseoglu C, Erdogan M, Ertem AG, et al: Aortic elastic properties and myocardial performance index are impaired in patients with lichen planus. *Med Princ Pract* 2016;25:247–253.
- 2 Lodi G, Pellicano R, Carrozzo M: Hepatitis C virus infection and lichen planus: a systematic review with meta-analysis. *Oral Dis* 2010;16:601–612.

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