

Is there a relationship between left atrium size and *p*-wave dispersion in patients with lichen planus?

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Dear Editor,

We read and were quite excited by the recently published article titled "Increased P-wave dispersion in patients with newly diagnosed lichen planus" by Sahin and coworkers (1). The study concluded that Pmax and P-wave dispersion (PWD) were significantly higher in the lichen planus (LP) group than in the control group (78.44 ± 14.14 ms *vs.* 68.64 ± 11.88 ms, $p < 0.01$; 39.9 ± 12.9 ms *vs.* 32.4 ± 11.8 ms, $p < 0.01$, respectively). However, Pmin was not significantly different between the groups (38.62 ± 5.44 ms *vs.* 36.48 ± 6.95 ms, $p = 0.09$) (1). Prolongation of PWD has been established as an independent risk factor for the development of atrial fibrillation (AF) (2). Therefore, this subject is important with regards to our daily clinical practice, and it deserves to be emphasized because of its successful design and results.

Sahin et al. showed (1) that there was a significant positive correlation between highly sensitive C-reactive protein (hsCRP) and PWD ($r = 0.54$, $p < 0.01$). The authors speculated that although the exact mechanism remains unclear, chronic inflammation may be responsible for the correlation between hsCRP and PWD in these patients. Chronic inflammation persists in LP patients for duration of the disease. Hence, a significant positive correlation between the duration of the disease and PWD is expected. We believe that the evaluation of the relationship between the duration of the disease and PWD will help us to understand the increased frequency of AF in patients with LP.

In addition, patients with coronary artery disease (CAD) were excluded from this study (1). As we know, psoriasis, which is a chronic inflammatory skin disease similar to LP, is associated with a high frequency of cardiovascular events (3). Studies have revealed that LP is correlated with cardiovascular risks, including dyslipidemia (4), diabetes mellitus (5), and increased oxidative stress (6). Sahin et al. (1) did not explain why patients with CAD were excluded

from their study but patients with subclinical atherosclerosis were not. In a previous study (7), PWD was greater in patients with stable CAD than in patients with normal coronary angiograms and was associated with disease severity (6). We believe that this information is important.

Another previous study (8,9) compared P-wave duration and PWD in patients with short- and long-term AF after cardioversion. Using univariate analysis, PWD was determined to be related to AF duration and left atrial size. Sahin et al. (1) did not evaluate the relationship between echocardiographic measurements and PWD. The study results would be more useful if the authors had clarified this topic.

REFERENCES

1. Sahin M, Bilgili SG, Simsek H, Akdag S, Akyol A, Gumrukcuoglu HA, et al. Increased P-wave dispersion in patients with newly diagnosed lichen planus. *Clinics*. 2013;68(6):846-50, doi: 10.6061/clinics/2013(06)20.
2. Ahlehoff O, Gislason GH, Jørgensen CH, Lindhardsen J, Charlott M, Olesen JB, et al. Psoriasis and risk of atrial fibrillation and ischaemic stroke: a Danish Nationwide Cohort Study. *Eur Heart J*. 2012;33(16):2054-64, doi: 10.1093/eurheartj/ehr285.
3. Yiu KH, Yeung CK, Zhao CT, Chan JC, Siu CW, Tam S, et al. Prevalence and extent of subclinical atherosclerosis in patients with psoriasis. *J Intern Med*. 2013;273(3):273-82, doi: 10.1111/joim.12002.
4. Dreier J, Shapiro J, Cohen AD. Lichen planus and dyslipidaemia: a case-control study. *Br J Dermatol*. 2009;161(3):626-9.
5. Seyhan M, Özcan H, Sahin I, Bayram N, Karıncaoglu Y. High prevalence of glucose metabolism disturbance in patients with lichen planus. *Diabetes Res Clin Pract*. 2007;77(2):198-202, doi: 10.1016/j.diabres.2006.12.016.
6. Aly DG, Shahin RS. Oxidative stress in lichen planus. *Acta Dermatovenol Alp Panonica Adriat*. 2010;19(1):3-11.
7. Yilmaz R, Demirbag R. P-wave dispersion in patients with stable coronary artery disease and its relationship with severity of the disease. *J Electrocardiol*. 2005;38(3):279-84, doi: 10.1016/j.jelectrocard.2005.02.003.
8. Dogan A, Acar G, Gedikli O, Özyaydin M, Nazli C, Altınbaş A, et al. A comparison of P-wave duration and dispersion in patients with short-term and long-term atrial fibrillation. *J Electrocardiol*. 2003;36(3):251-5, doi: 10.1016/S0022-0736(03)00049-9.
9. Kurt M, Tanboğa IH, Karakaş MF, Büyükkaya E, Akçay AB, Sen N, et al. The relationship between atrial electromechanical delay and P-wave dispersion with the presence and severity of metabolic syndrome. *Türk Kardiyol Dern Ars*. 2012;40(8):663-70, doi: 10.5543/tkda.2012.97404.

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