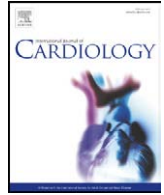




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Letter to the Editor

## HLA-B27-associated J-wave – A new variant of HLA-B27-associated cardiac disease?

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In 1973 the strong association between the immunogenetic marker HLA-B27 and ankylosing spondylitis was described [1]. The strength of this association was unprecedented – HLA-B27 incurred a relative risk of more than 100 for ankylosing spondylitis [2].

In 1997 Bergfeldt [2] noted the presence of a cardiac syndrome, consisting of severe conduction system abnormalities plus aortic regurgitation, associated with HLA-B27 – present in 67% to 88% of patients with both these cardiac findings. The strength of this association led him to replace the concept of “cardiac complications of HLA-B27” with the term “HLA-B27-associated cardiac disease” [2]. An increased incidence of arrhythmias was also noted.

In this study it was hypothesized that a high incidence of electrocardiographic abnormalities will be present in patients with the immunogenetic marker HLA-B27. In this retrospective analysis a total of 62 patients with the immunogenetic marker HLA-B27 were identified out of a total of 1500 patient files from a cardiac clinic.

Electrocardiographic abnormalities were present in 69% of these patients. Of interest is that the most common electrocardiographic abnormality in this group of patients was J-waves in the inferior electrocardiographic leads, present in 44% of these patients (see Fig. 1).

Tikkanen et al. [3] noted that an early repolarization pattern (J-wave) in the inferior leads of the electrocardiogram is associated with an increased risk of death from cardiac causes in middle aged subjects.

Kazmierczak et al. [4] recently published their study on the incidence of cardiac arrhythmias in 31 patients with ankylosing

<b>Number of patients with HLA-B27:</b>	<b>62</b>
<b>Men:</b>	<b>36</b>
<b>Women:</b>	<b>26</b>
<b>Average age (years):</b>	<b>52</b>
<b>Normal electrocardiogram:</b>	<b>19</b>
<b>Abnormal electrocardiogram:</b>	<b>43</b>
<b>Left bundle branch block:</b>	<b>1</b>
<b>Right bundle branch block:</b>	<b>3</b>
<b>Premature ventricular complexes:</b>	<b>7</b>
<b>Delta-waves:</b>	<b>3</b>
<b>Inferior J-waves:</b>	<b>27</b>
<b>AV-reentry:</b>	<b>1</b>
<b>Inferior ST-depression:</b>	<b>1</b>

Fig. 1. Patient characteristics.

spondylitis and they found a high incidence (55%) of ventricular extrasystoles.

This is the first observation of a high incidence of inferior J-waves – an entity with a proven risk for cardiac death – in patients with the immunogenetic marker HLA-B27.

It is postulated that the same obliterative endarteritis and fibrosis which are present in the tissues adjacent to afflicted joints [2] in these patients, are also present in the myocardium and are responsible for the inferior J-waves.

## Acknowledgement

The authors of this manuscript have certified that they comply with the Principles of Ethical Publishing in the International Journal of Cardiology [5].

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