

# Letter to the Editor

## Left atrial dynamic function and interatrial block in hemodialysis patients: the importance of P-wave morphology analysis

Dear Editor,

We read with great interest the manuscript by Bilen et al<sup>1</sup> which correlates interatrial block (IAB) and P-terminal force with left atrial (LA) dynamic function, calculated by LA volume, aiming to use the surface ECG as a predictor of cardiovascular events. In our opinion the high prevalence of these electrocardiographic abnormalities in hemodialysis patients turns difficult their use as risk predictors; however, we would like to add some comments regarding current definitions of IAB.

According to a consensus paper published in 2012, IAB should be classified as partial (P-wave  $\geq$  120 ms) or advanced (P-wave  $\geq$  120 ms with  $\pm$  morphology in the inferior leads)<sup>2</sup>. Advanced IAB is associated with both left atrial enlargement and atrial tachyarrhythmias<sup>2-4</sup>. Partial IAB is highly prevalent in the hemodialysis population<sup>5,6</sup>, whereas the advanced form is found in about 10% of these patients<sup>5-7</sup>. Though LA anatomical enlargement and electrocardiographic signs of IAB frequently co-exist, IAB may suddenly develop or change its degree of block as a consequence of the hemodialysis procedure<sup>8,9</sup> or spontaneously<sup>10</sup>, whereas the size of the LA varies much less, suggesting an electrical remodelling that is independent from the LA function. We suggest the authors to review the 12-lead ECG in their patients taking into account the P-wave morphology in the inferior leads (in order to distinguish between partial and advanced IAB) and correlate them with LA dynamic function.

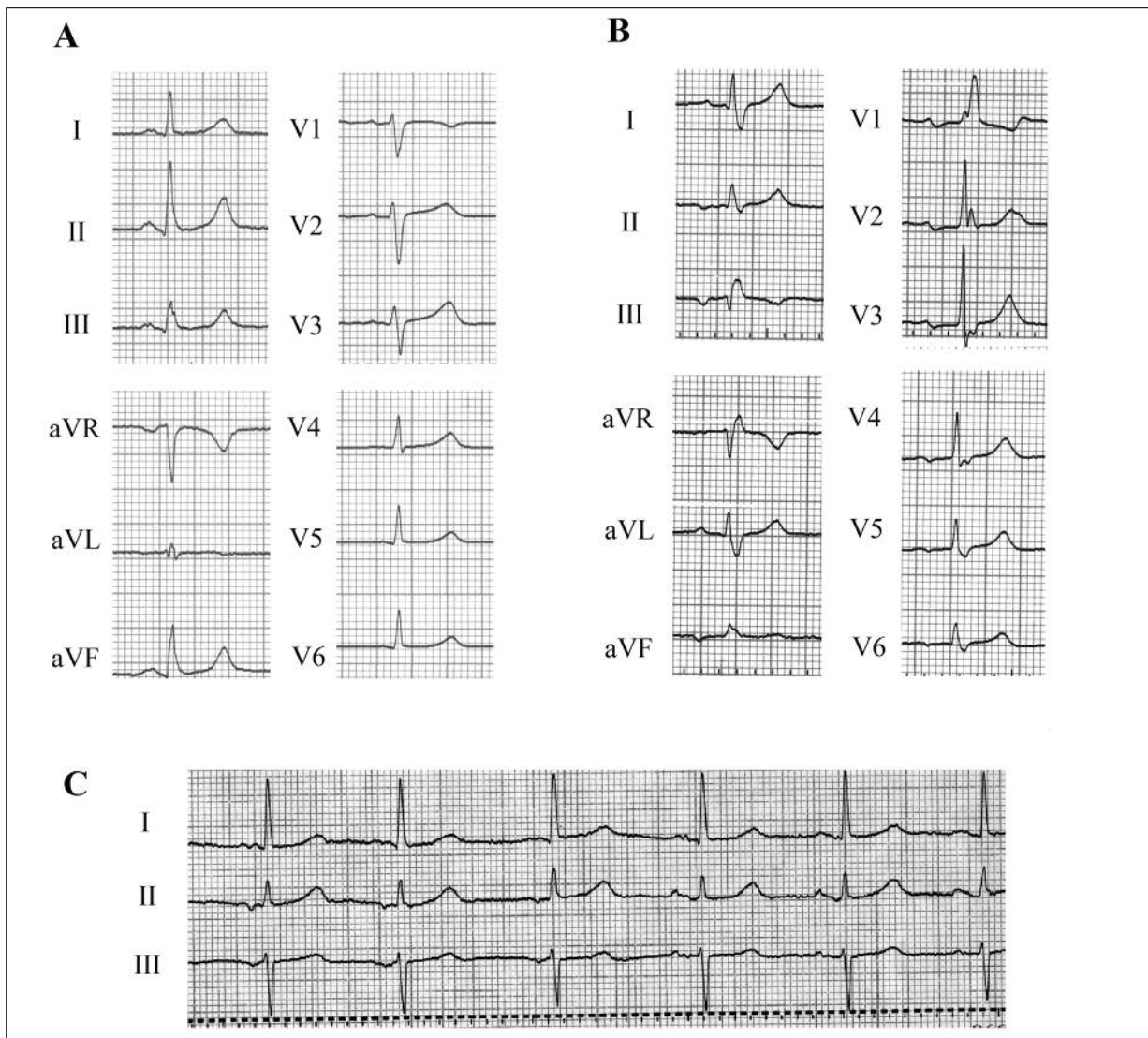
Using the current definition of IAB is not merely an academic distinction but it also allows more in depth understanding of the interplay between the electrophysiological disorder and the LA volume and dynamic function. With this in mind, the surface ECG may help predicting cardiovascular events (mostly atrial fibrillation) in hemodialysis patients as the authors stated in their paper.

### Statement of Interests

The Authors declare no financial support and no conflict of interest.

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**Figure 1.** **A**, Partial IAB (also termed first degree IAB), note the “notched” P-wave with duration longer than 120 ms. **B**, Advanced IAB (also termed third degree IAB), note the +/- morphology in the inferior leads with a P-wave duration longer than 120 ms. **C**, Intermittent IAB (also termed second degree IAB). This case corresponds to a hemodialysis patient. Modified with permission ref # 10.

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