This is a repository copy of Differences in right and left atrial structure and electrophysiology in ARVD.

White Rose Research Online URL for this paper: http://eprints.whiterose.ac.uk/125026/

Version: Accepted Version

Proceedings Paper:

https://doi.org/10.1093/europace/eux283.084

Published by Oxford University Press on behalf of the European Society of Cardiology. All rights reserved. This is an author produced version of a paper published in EP-Europace. Uploaded in accordance with the publisher's self-archiving policy.

Reuse
Items deposited in White Rose Research Online are protected by copyright, with all rights reserved unless indicated otherwise. They may be downloaded and/or printed for private study, or other acts as permitted by national copyright laws. The publisher or other rights holders may allow further reproduction and re-use of the full text version. This is indicated by the licence information on the White Rose Research Online record for the item.

Takedown
If you consider content in White Rose Research Online to be in breach of UK law, please notify us by emailing eprints@whiterose.ac.uk including the URL of the record and the reason for the withdrawal request.
RIGHT ATRIAL INVOLVEMENT IN RIGHT ARRHYTHMOGENIC CARDIAC DYSPLASIA

Background
Arrhythmogenic right ventricular dysplasia (ARVD) is an inherited cardiomyopathy that predominantly affects the right ventricle. Patients can also be prone to developing atrial fibrillation (AF), and this may be related to structural changes in the right rather than the left atrium. We used multichannel ECG analysis to explore this hypothesis.

Methods
We studied 9 patients with confirmed ARVD and 9 controls who were similar in age, gender and body mass. An 80 lead ECG was obtained using a vest (Verathon) and data stored for offline analysis. In order to study the right and left atrial differences in p wave morphology we selected six anterior channels for the right and six posterolateral channels for the left. The p wave integral, amplitude and magnitude were compared between each group.

Results
There were no significant differences between the right and left leads for p wave integral, amplitude and magnitude in the controls. In the patients there were no significant difference in the p wave integral between the right and left. However the p wave amplitude and magnitude was larger for the channels related to the right atrium than the left (p=0.036 and p=0.06) (Figure).

Conclusion
The findings suggest abnormalities in right atrial structure and electrophysiology in ARVD patients. The increase AF burden in these patients therefore could be of right atrial origin.