

# Impact of The New Task Force Criteria of Arrhythmogenic Right Ventricular Cardiomyopathy on Its Prevalence by CMR Criteria

Shamruz Khan Akerem Khan, Shakeel Ahmed Memon, Syahidah Syed Tamin, Lay Koon Tan, Sanjiv Joshi  
Cardiovascular MRI Unit, National Heart Institute, Kuala Lumpur, Malaysia



## Background

Arrhythmogenic right ventricular cardiomyopathy (ARVC) is an inherited cardiomyopathy that can lead to sudden cardiac death. The diagnostic criterion has recently been revised to include, amongst others, new cardiovascular magnetic resonance (CMR) criteria to improve the diagnostic sensitivity. The implications of this revision on local clinical decision making are unknown.

## Objectives

The purpose of our study was to assess and compare the clinical impact of Original 1994 Task Force Criteria (OTF) to the Revised 2010 Task Force Criteria (RTF) on the prevalence of ARVC criteria through the use of CMR at our center.

## Method

We retrospectively evaluated the CMR scans of 106 patients (mean age  $40 \pm 14$ , 54% male), referred for clinical suspicion of ARVC between 2011 and 2013, and determined the presence or absence of major and minor CMR criteria using the Original and the Revised Task Force Criteria.

## Conclusions

In our experience, the revision of the ARVC task force imaging criteria reduced the overall prevalence of major and minor criteria. However, apart from the minor criteria, this reduction was not statistically significant. Further studies are required using histopathology as a gold standard.

## Results

Of the 106 CMR scans performed, 28 scans (26%) fulfilled any criteria for ARVC using both OTF and RTF criteria.

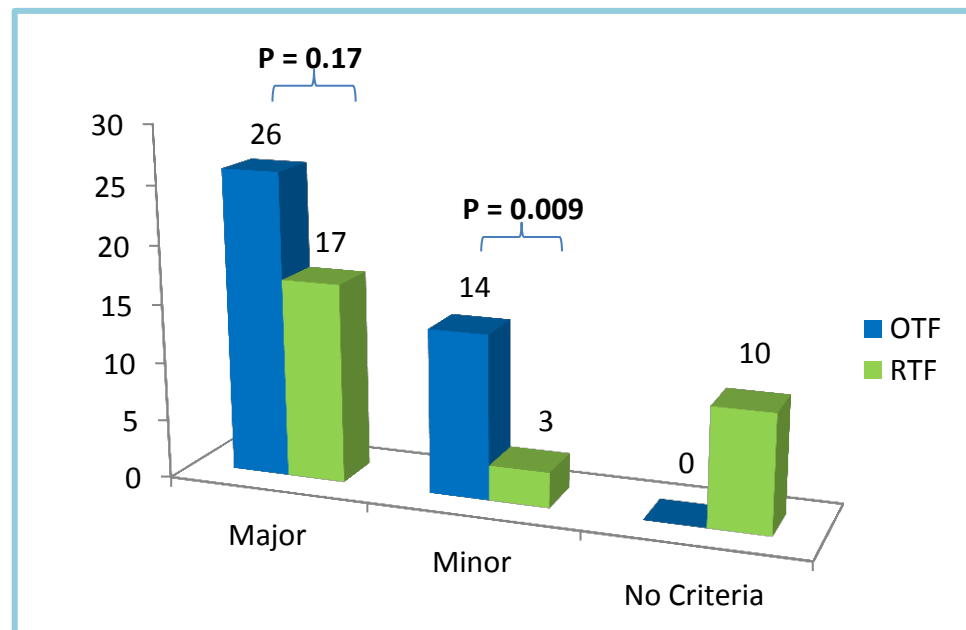


Fig. 1. The number of patients assigned major CMR criterion, minor CMR criterion and no criterion according to the original 1994 TF criterion (OTF) and the revised 2010 criterion (RTF).

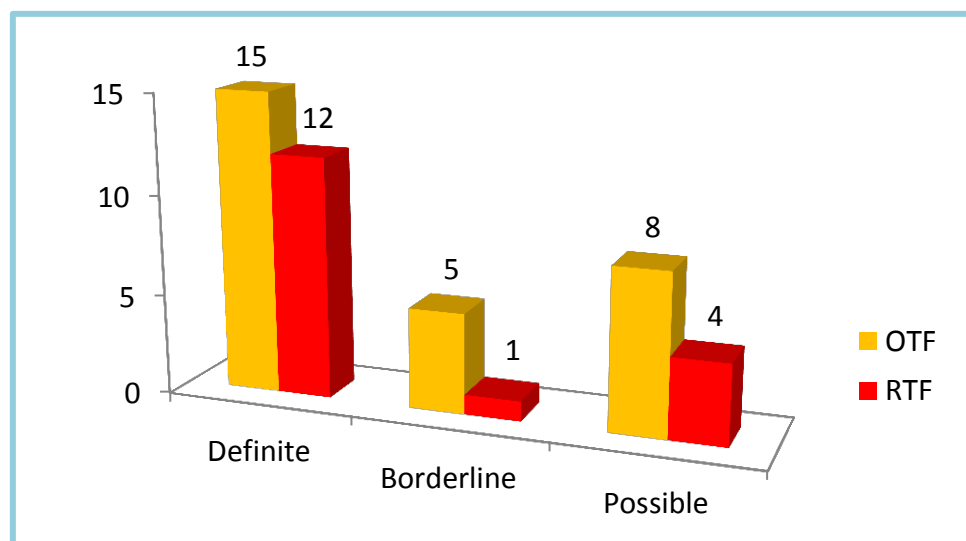


Fig. 3. The number of patients diagnosed as definite ARVC, borderline ARVC and possible ARVC using the original 1994 TF criterion (OTF) and the revised 2010 criterion (RTF).

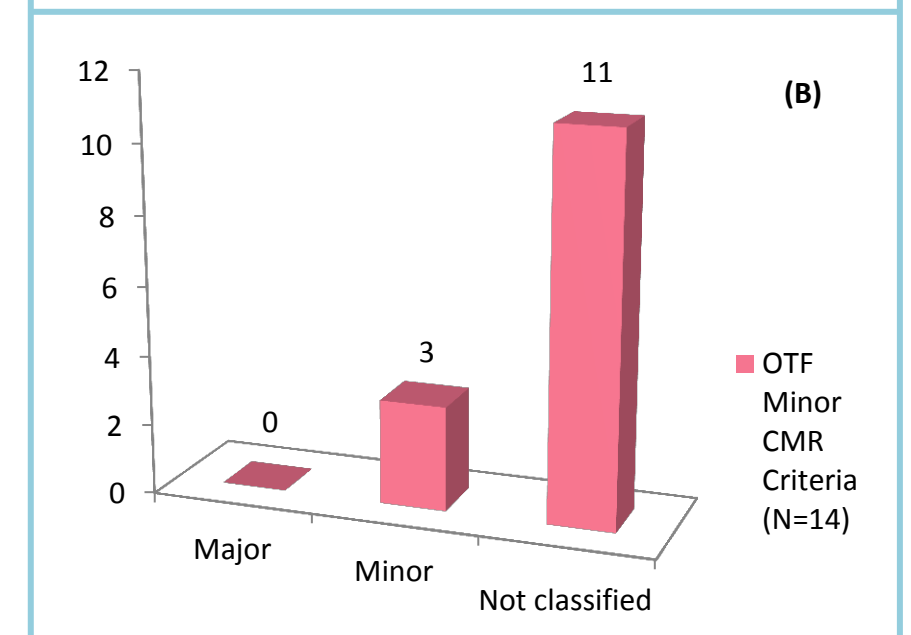
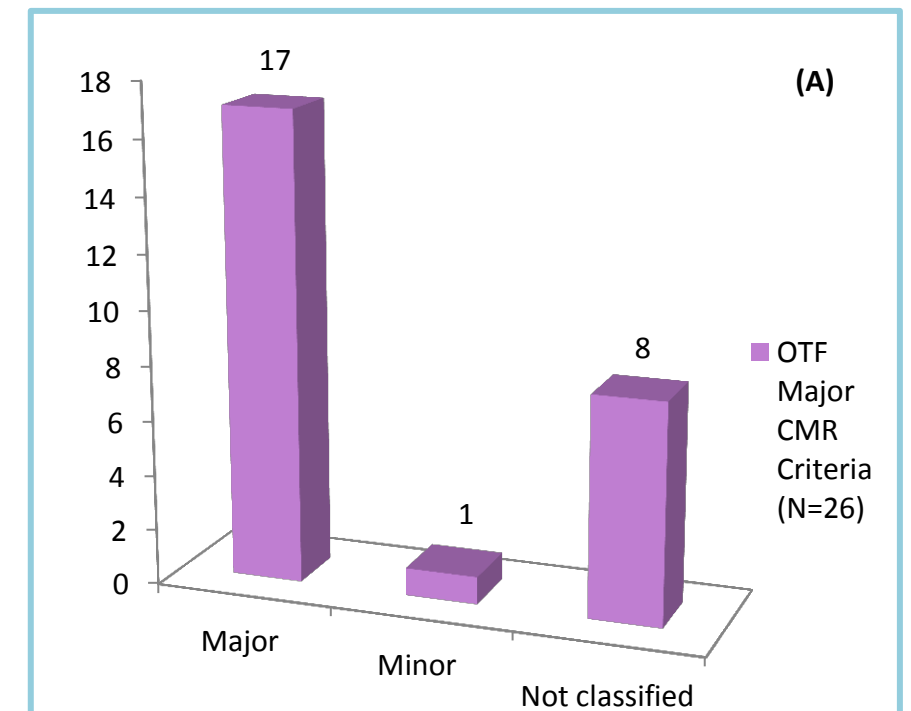


Fig. 2. Reclassification with the revised 2010 criterion of patients initially classified as major or minor criteria using the original 1994 TF criterion (OTF).

Upon reclassification with the RTF, 11 of these 28 patients did not meet any CMR criteria for ARVC ( $p=0.09$ ).