Fat content surrounding your heart may cause your arrhythmia to recur

Epicardial adipose tissue (EAT) is a metabolically active fat depot surrounding the heart. It is located between the outer wall of myocardium and the visceral pericardium. Its proximity to cardiac structures (i.e. vessels, myocardium) and its shared blood supply with the cardiac microcirculation makes it a unique fat depot. In our study, we investigated whether there is an association between thickness of this fat tissue and success of cryoballoon- based pulmonary vein isolation (PVI), which is an accepted therapeutic alternative for eliminating foci of arrhythmogenesis.

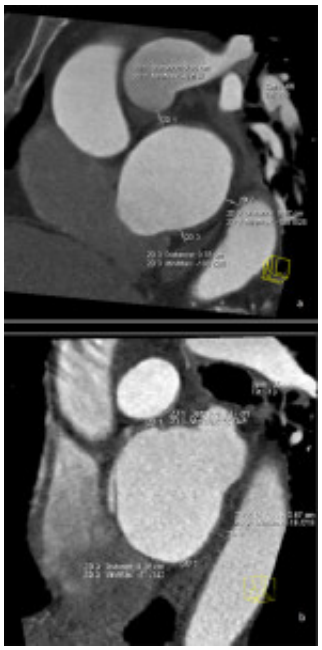

Fig. 1. Figure comparing periatrial EAT thickness between patients with (a) and without (b) AF recurrence.

For this purpose, we recruited 249 patients who were scheduled for cryoballoon- based PVI for AF per the recent recommendations and followed them up for a median of 29 months. We recorded EAT thickness of all patients during multidetector computed tomography (MDCT) scans, which were obtained prior to the procedure. During follow- up, 75.9% of the study population were found to remain AF- free. Total EAT thickness adjacent to the atria (periatrial EAT) was greater in patients with AF recurrence when compared to those without (18.1± 6.2 vs. 14.7± 4.7 mm, p