Critical role of non-pulmonary vein triggers in patients with atrial fibrillation referred after two or more failed catheter ablations

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Objective: We report the procedural findings and ablation outcome in consecutive AF patients referred to our center after two or more ablation procedures.

Methods: Three hundred five consecutive patients (paroxysmal AF 82 [27%]) referred to our institutions from January 2009 to August 2015, after ≥2 failed procedures at other centers, were included in this analysis. High-dose isoproterenol challenge was used to identify non-PV triggers. These were defined as ectopic triggers originating from sites such as interatrial septum (IAS), left atrial appendage (LAA), crista terminalis (CT), superior vena cava (SVC) and coronary sinus (CS). Both sustained (>30 seconds) as well as non-sustained triggers including repetitive short-lasting bursts of arrhythmia (<30 sec) or premature atrial contractions (PAC) (>1 beat/minute) with earliest activation from non-PV sites were targeted for ablation. Patients were monitored for arrhythmia at quarterly office visits, ECGs, 7-day holter monitoring and event recorders. Any episode of AF/AFL ≥10 beats/minute with earliest activation from interatrial septum (IAS) was defined as recurrence.

Results: At the index procedure PV reconnection was observed in 226 (74%) of patients. After challenge with isoproterenol non-PV triggers were identified in 83 patients, based on operator’s discretion. The ulnar artery has a significantly smaller percentage of anomalies compared to the radial artery.

Conclusions: The ulnar artery has a significantly smaller percentage of anomalies compared to the radial artery.

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Use of drug eluting stents compared to bare metal stents in ST segment elevation myocardial infarction is associated with reduced mortality and cardiovascular outcomes: results from the TOTAL trial

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Objective: To assess and compare the rates of wrist artery anomalies and their impact on the success of STEMI procedures in a large series of patients.

Methods: All consecutive 4303 STEMI patients, in the period from March 2011 until December 2016 were examined. Preprocedural wrist angiography was performed in all patients. Clinical and procedure characteristics, type of radial artery variants, transfer and procedure time were analyzed.

Results: From 4303 STEMI patients, RRA was done in 4169 (96%) patients, transulnair in 80 (1.7%) patients, LRA with 37 (0.8%), TFA in 8 (0.1%), and TBA in 9 (0.2%) patients. Anatomical variants of the RA and UA were present in 432 (10%) STEMI patients. 330 (7.6%) STEMI patients had Radial artery anomalies and 599 (29.4%) had Ulnar artery anomalies on wrist angiography.

Conclusions: The ulnar artery has a significantly smaller percentage of anomalies compared to the radial artery.

OPTIMISATION OF PRIMARY PCI

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Radial vs. Ulnar artery anomalies in STEMI patients: 6 year results from routine Wrist artery angiography

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Background: The safety and efficacy of drug eluting stents (DES) in the setting of STEMI patients remains controversial.

Purpose: To compare the outcomes of STEMI patients receiving DES to those receiving a bare metal stent (BMS) during primary PCI.

Methods: In the TOTAL trial, patients presenting with STEMI were randomized to routine thrombectomy versus PCI alone. Propensity matching was used to assess relative safety and efficacy according to type of stent used.

Results: DES were used in 4333 patients and BMS in 5990 patients. The com-posite primary outcome of cardiovascular death, recurrent MI, cardiogenic shock