

Fluoroscopy Use During Different Atrial Fibrillation Ablation Techniques

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Background:

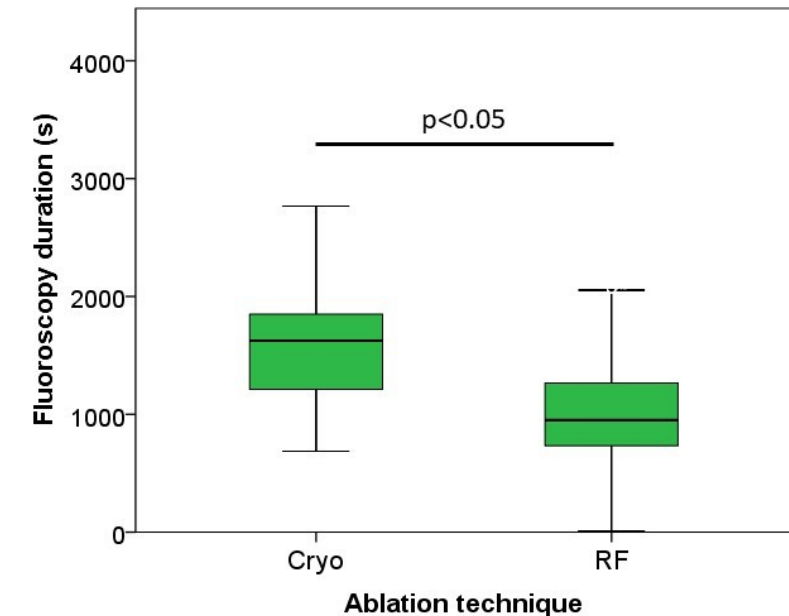
Catheter ablation of atrial fibrillation is (AF) an established therapy for patients with symptomatic paroxysmal (PAF) and persistent AF (persAF). The cornerstone of AF ablation is pulmonary vein isolation (PVI), which can be achieved by different techniques including radiofrequency (RF) and cryoablation. It has been previously demonstrated that procedure times using single shot devices such as cryo-balloons are shorter. We aimed to test, whether radiation exposure differed between both ablation techniques.

Methods:

We reviewed retrospectively procedural data from first ablation of AF with PVI only using RF and cryoablation. Primary endpoints were fluoroscopy time and dose area product.

Results:

| n=242 | Cryo | RF | p |
|---------------------------|-----------------------------------|------------------------------------|------|
| n | 54 | 188 | |
| age | 61±11 | 59±10 | n.s. |
| female | 37% | 31% | n.s. |
| AF type | paroxysmal: 93% persistent: 7% | paroxysmal: 63% persistent: 31% | n.s. |
| BMI (kg/m ²) | 27±6 | 28±4 | n.s. |
| LVEF (%) | 59±4 | 59±8 | n.s. |
| AF duration (months) | 36 (IQR 60) | 24 (IQR 57) | n.s. |
| diabetes (%) | 4 | 6 | n.s. |
| arterial hypertension (%) | 56 | 53 | n.s. |
| fluoroscopy times (s) | 1632±568 | 1142±1034 | 0.02 |
| DAP (Gycm ²) | 57 (IQR 87) | 56 (IQR 73) | n.s. |



Conclusion:

Shorter procedure durations come at the price of greater radiation exposure during cryo ablation. Single shot devices using electroanatomic mapping systems may overcome this limitation. .

Conflict of interest

The authors declare, that they have no conflict of interest.