

Case images

Olgu görüntüsü

Successful ablation of paroxysmal atrial fibrillation originating in left atrial appendage with single shot cryoballoon technique

Sol atriyal apendiksten kaynaklanan paroksizmal atriyum fibrilasyonunun kriyobalon tekniği ile başarılı ablasyonu

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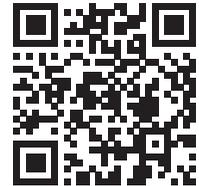
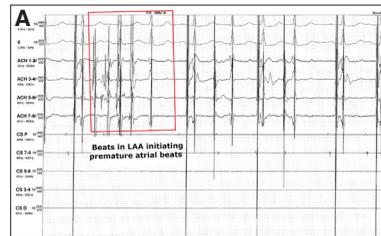
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A 62-year-old hypertensive female patient was referred for catheter ablation due to episodes of paroxysmal atrial fibrillation (AF). Baseline electrophysiological study was performed to exclude other supraventricular arrhythmias. Pulmonary veins (PVs) were isolated with 28-mm cryoballoon catheter. Although there was no electrical activity (either spontaneous or after adenosine administration) in left or right PV, cryoenergy application was performed in all PVs and we searched for arrhythmogenic non-PV triggers. Isoproterenol infusion was administered and it was observed that beats in left atrial appendage (LAA) initiated firing of AF episodes, which were recorded with circular mapping catheter, which were recorded with circular Achieve Mapping Catheter (Medtronic, Inc., Minneapolis, MN, USA) (Figure A). Cryoballoon was inflated and positioned at the LAA ostium, aiming for complete occlusion (Figure B). During cryoballoon ablation, progressive LAA spike delay resulted in dissociated LAA spike and complete LAA isolation (time to block: 67 seconds; cryoballoon temperature: -40°C) (Figure C, D). Cryoballoon freeze was limited to 300 seconds, with lowest temperature of -48°C .

Given that it is adjacent to LAA, left phrenic nerve was monitored with manual palpation and pacing from circular mapping catheter. The patient was subsequently discharged uneventfully. Oral anticoagulation was recommended for life due to LAA isolation. Follow-up visit at 15 months after ablation showed no recurrence of any atrial arrhythmia.



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Figures– (A) Beats in left atrial appendage (LAA) after isoproterenol infusion initiated firing of AF episodes, which were recorded with circular mapping catheter; **(B)** Fluoroscopic image of occlusion of LAA ostium with cryoballoon catheter; **(C)** Dissociated LAA spike and complete isolation of LAA potential demonstrated in circular mapping catheter recordings; **(D)** Delayed LAA spike resulting in complete isolation of LAA potential illustrated in circular mapping catheter recordings.