CASE IMAGE

Percutaneous closure of transseptal puncture-related non-coronary cusp perforation with Amplatzer Duct Occluder II

Transseptal geçiş esnasında perfore olan non-koroner kapakçığın Amplatzer Duct Occluder II ile perkütan kapatılması

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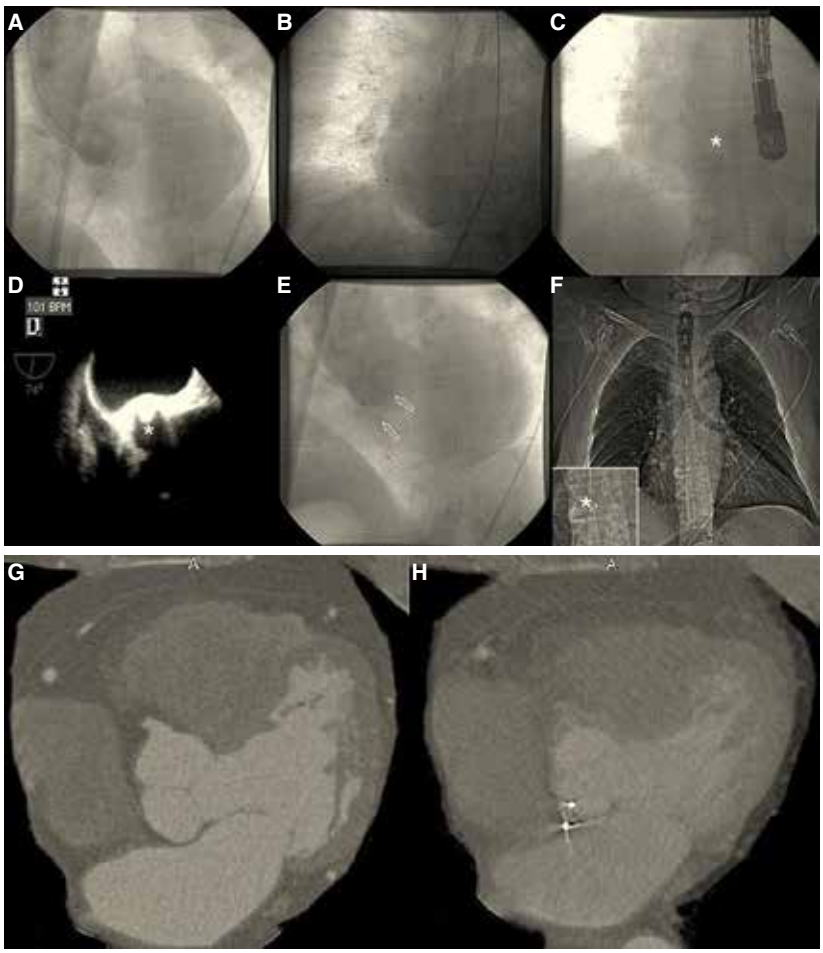
A 57-year-old male with paroxysmal atrial fibrillation was brought to the catheter laboratory for cryoballoon ablation. While transseptal puncture was being performed with a Brockenbrough needle (Medtronic Inc., Dublin, Ireland), the aorta at the level of the non-coronary cusp was punctured (Figure A). Transseptal needle was immediately removed, and a 0.035-inch guidewire was passed through the sheath (Figure B). With guidance of fluoroscopy and transesophageal echocardiography (TEE), a ¾-mm Amplatzer Duct Occluder II device (ADO; St. Jude Medical, Inc., Little Canada, MN, USA) was implanted through a 5F-occluder delivery system at the site of puncture (Figure C). After confirming the position of the device in the aorta with TEE (Figure D) and fluoroscopy (Figure E), the procedure was completed. The location of the device was also confirmed with chest x-ray obtained during follow-up in the intensive care unit (Figure F). Cardiac computed tomography (CT) was performed, and the position of the occluder device was determined and compared with corresponding CT sections obtained before the procedure for pulmonary vein mapping (Figure G, H). The patient was anticoagulated with warfarin, and discharge was uneventful.



Figures– (A) Fluoroscopy in the left lateral position showing aortic perforation at the level of the non-coronary cusp with Brockenbrough needle over a transseptal sheath; **(B)** View in the right lateral position of 0.035-inch guidewire placed through the transseptal sheath following removal of the needle; **(C)** Position of the ADO II device, controlled before removal of the delivery system (asterisk); **(D)** Localization of the ADO II device in the basal view, short-axis plane of TEE (asterisk); **(E)** Fluoroscopy in the left lateral position showing radiopaque distal and proximal markers (arrows) of the ADO II device; **(F)** Image of the ADO II device in chest x-ray at the level of 7th thoracic vertebra. Magnified image of the device is shown in the inset (asterisk). **(G)** Pre-procedural cardiac CT showing aortic cusp in horizontal section; **(H)** Post-procedural cardiac CT showing distal and septal radiopaque markers of ADO II device at the level of non-coronary aortic cusp.