WATCHMAN Device is on the Watch
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Clinical History
We present the case of a 65 year old male, who underwent a pulmonary vein isolation procedure and ablation for recurrent persistent atrial fibrillation with subsequent placement of a “WATCHMAN” (Atritech, Plymouth MN) left atrial appendage (LAA) occlusion device. The patient underwent a contrast enhanced cardiac CT to evaluate for proper placement and to exclude any residual communication between the left atrium and the LAA.

Findings
A normal LAA with its pectinate muscles is readily opacified after the administration of an adequately timed intravenous contrast bolus (Fig. 1A and B, asterisk). In our patient, a WATCHMAN device (arrows) in regular position completely occupies the LAA resulting in lack of opacification of LAA (asterisk) by contrast in both early and delayed phases of imaging (Fig. 2A and B), confirming thrombosis and exclusion of the left atrial appendage. In addition, the integrity of the device can be demonstrated by obtaining 3-D volume rendered images.

Discussion
Patients with atrial fibrillation carry a 5% annual risk to suffer from stroke, which is 5 times higher than in an aged-matched population in sinus rhythm. The majority of ischemic strokes are attributed to embolization of a thrombus typically originating from the LAA. The WATCHMAN LAA System is a nitinol frame structure covered with a permeable polyester fabric that allows blood flow but excludes passage of thrombi out of the LAA. Anticoagulation for up to 6 months is necessary after implantation in order to ensure adequate endothelialization of the device, following which anticoagulation can be safely discontinued. Preliminary data suggests that LAA occlusion with a WATCHMAN System is safe and feasible, and cardiac CTA is an excellent modality to assess the integrity of the WATCHMAN device.

REFERENCES