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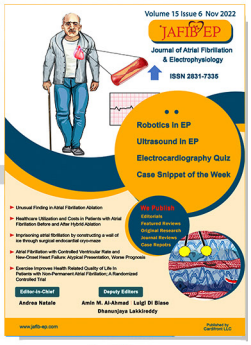

Left Atrial Appendage Accessory Lobe Closure Post-LAAO Device Leak

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Case synopsis

A 76-year-old male with past medical history of hypertension and persistentatrial fibrillation on oral anticoagulation developed melena and underwent left atrial appendage occlusion with a 24 mm Watchman device. A 3mm peri device leak (PDL) was noted on his 6-Week TEE with no signs of complications or device related thrombus. CT scan for further assessment of the device leak demonstrated that the main big lobe of the appendage is completely occluded by the device, however, there is an accessory lobe of the appendage that is partially blocked by the device, and the leak is emerging from that accessory loop which is still opacified with contrast. It was a 12.3 x 10.7 mm contrast filled column of the left atrial appendage along the left anterior and inferior aspect of the device at 2-3 o'clock position that was noted through a narrow neck measure on cardiac CT at 5m x 6 mm. It was decided to proceed with accessory lobe closure.

Case reports of Watchman residual leaks closure using AMPLATZER™ vascular plug or coils[1] as an alternative treatment has been published and suggested feasibility, safety, and efficacy of these techniques. This is particularly important in patients with residual accessory lobes who are not tolerating long-term oral anticoagulants[2].

A left atrial appendage PDL closure with Amplatzer Vascular plug II was performed; A 6F MPA guide catheter was advanced to the left atrium through the transseptal Versacross sheath. Using a soft glide wire, the MPA guide catheter was advanced to the accessory loop/ peridevice leak and position was confirmed with contrast injection. A 10 mm AVP II was advanced through the MPA guide and deployed in the leak area. A tug test was performed, and the device remained stable. There was no residual leak around the device on assessment with doppler transesophageal echo and with contrast cine imaging. Treatment with Plavix and ASA 81mg daily for 4 months as per protocol was continued, following which he was taken off Plavix.

Teaching points:

1. Residual leaks after LAA occlusion remain a limitation of LAA occlusion devices which are assessed for by transesophageal echocardiogram (TEE) vs cardiac computed tomography during follow--up (at 45 days, 6 months and 1 year) post procedure.
2. Real-world data have demonstrated that the incidence of thromboembolic events was higher in patients with PDL, irrespective of the size of the leak due to which closure of PDL with device remains a viable option.

References

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Key Words

Atrial Fibrillation, Ablation, Convergent, AtriClip, Left Atrial Appendage

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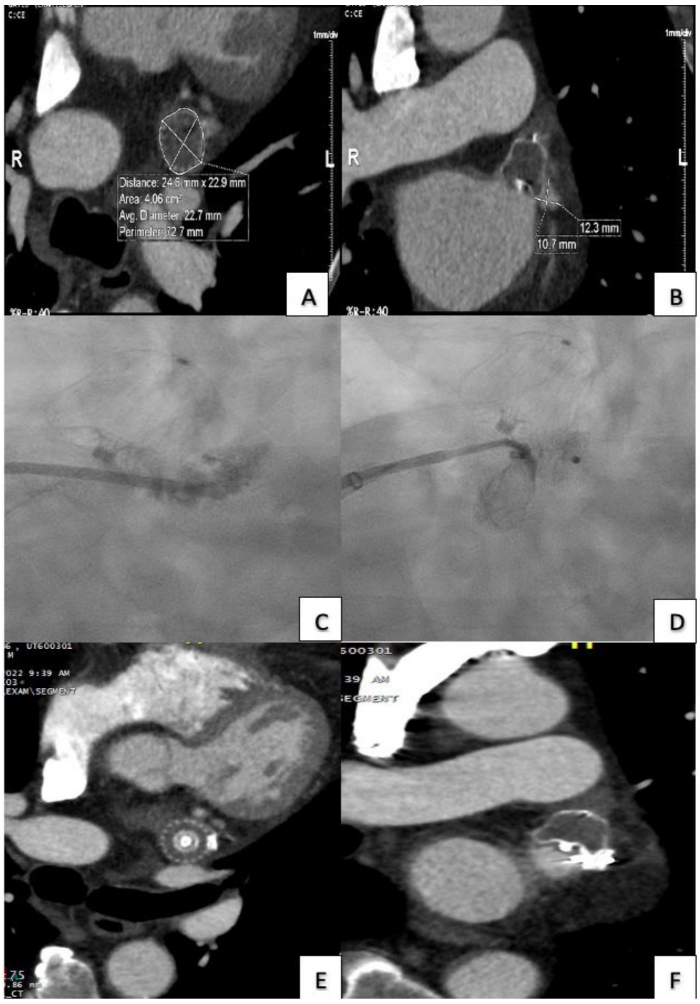

Figure 1: CT with contrast depicting A. satisfactory positioning of the Watchman device in the left atrial appendage. B. 12.3 x 10.7 mm contrast filled column of the left atrial appendage along the left anterior and inferior aspect of the device at 2-3 o'clock position which is continuous with the contrast filled column of the left atrium through a narrow neck of 5 x 6 mmis concerning for small peri device leak. Angiogram depicting contrast filling the LAA accessory lobe adjacent to the Watchman device with deployment of Amplatzer vascular plug in the same, C and D. CT with contrast 2 months post procedure depicting excellent result- closure of the lobe with 10mm Amplatzer vascular plug, E and F.