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Percutaneous Endovascular Retrieval of a Dislodged Left Atrial Appendage Closure Device from the Juxtarenal Aorta

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We present a 74-year-old male Who is known to have diabetes, hypertension male and paroxysmal atrial fibrillation. A 21-mm Left Atrial Appendage (LAA) Occluder Watchman Device (Boston Scientific, Maple Grove, MN) was implanted 6 months earlier. The patient presented with asymptomatic device migration diagnosed on follow-up cardiac echocardiography. Computed tomography (CT) angiography showed the device lodged at the juxtarenal aorta occluding the right renal artery [Figure 1a and b]. Abdominal aortography through left brachial access showed the migrated device at the level of the renal arteries [Figure 1c]. Through the right internal jugular vein, an intracardiac echocardiography catheter was advanced to the inferior vena cava to monitor the aortic lumen during the retrieval procedure. Using a 14-Fr sheath (Cook Medical, Bloomington, IN) through the left common

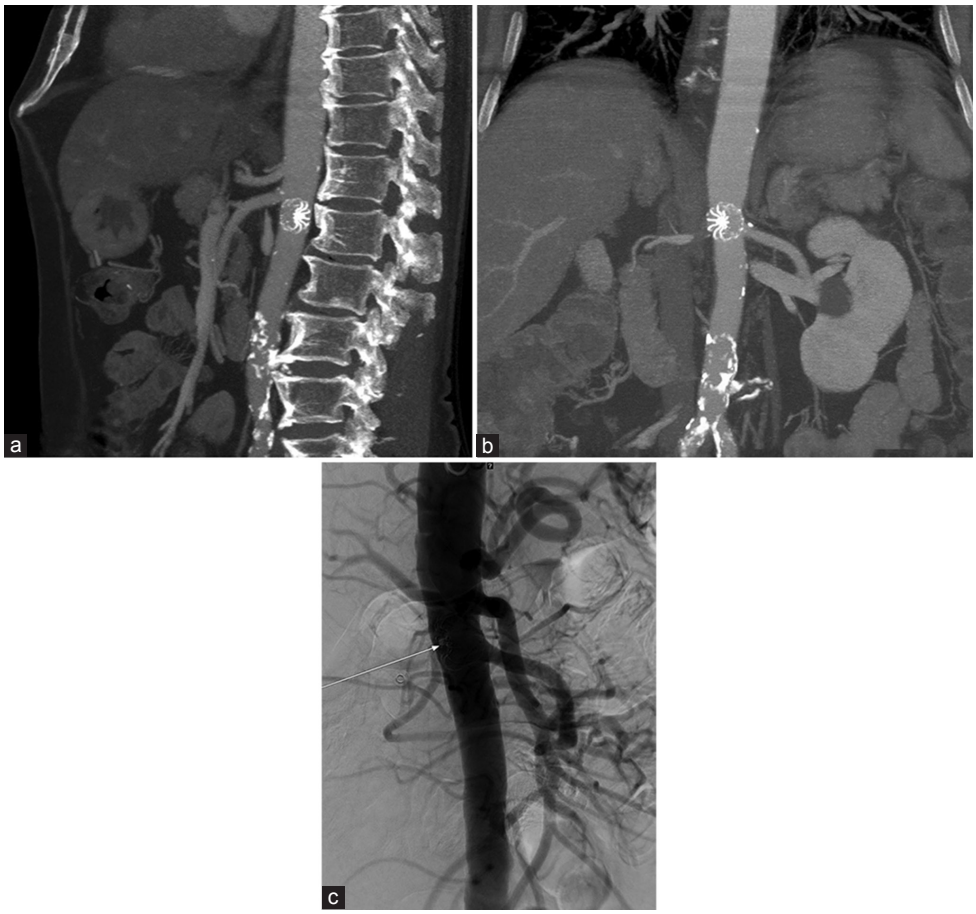

Figure 1: (a and b) Contrast-enhanced computed tomography scan of the abdomen showing the embolized Watchman device within the juxtarenal abdominal aorta. (c) Conventional abdominal aortography confirming the location of the embolized device (white arrow) and patency of the aorta before retrieval

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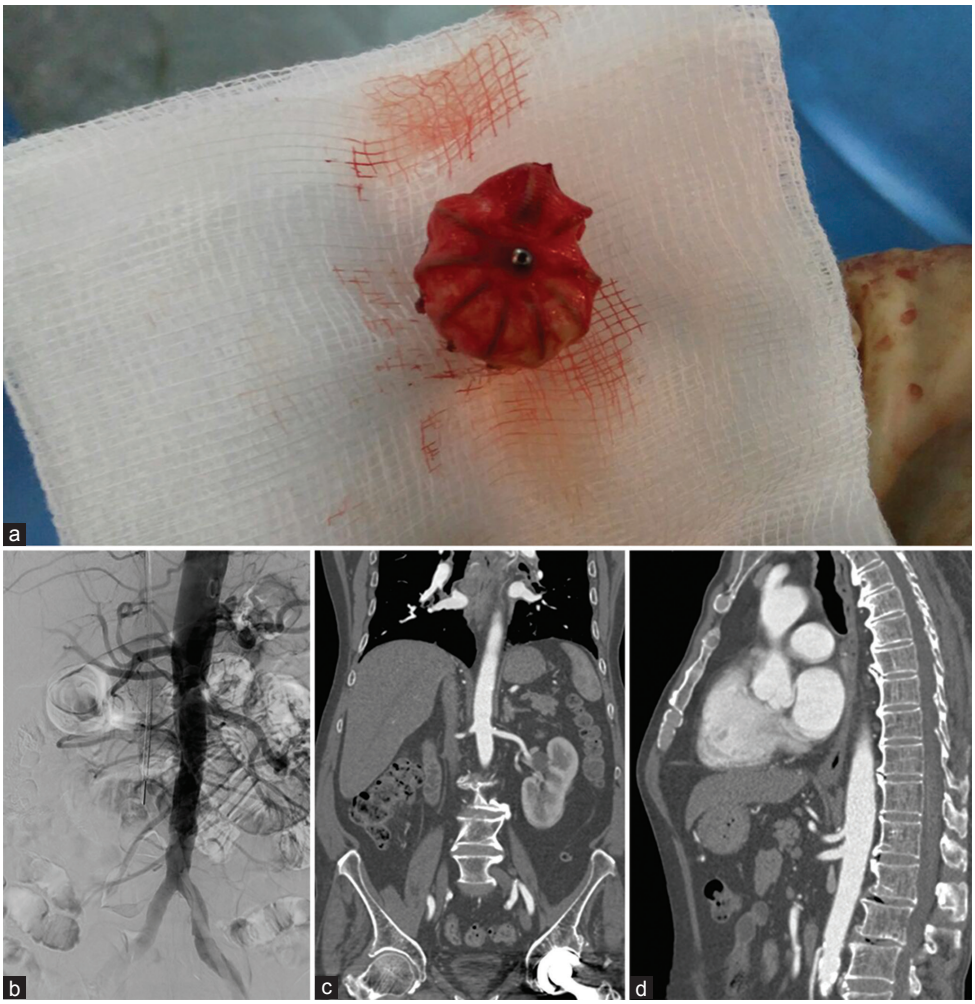

Figure 2: (a) Retrieved Watchman device (b) Postretrieval aortography showing patent intact aorta. (c and d) Follow-up computed tomography scan images showing intact aorta with no signs of vascular injury

femoral artery, the device was captured and removed using alligator forceps [Figure 1d]. Completion aortography showed no extravasation or dissection [Figure 2a]. Femoral access hemostasis was achieved using Prostar® XL closure device (Abbott Vascular Inc, CA, USA). A follow-up CT angiography 1 month later revealed intact and widely patent abdominal aorta [Figure 2b-d].

LAA occlusion is a nonpharmacological alternative embolic protection in patients with nonvolvular atrial fibrillation.[1,2] LAA device migration is a rare complication that was reported in less than 4% of cases.[1] LAA closure device migration into the aorta is rare and reported only in seven cases in the literature.[2,3] Our case demonstrated that percutaneous endovascular retrieval is a safe alternative to major surgery.

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Conflicts of interest

There are no conflicts of interest.

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