We report the case of a 69-year-old woman admitted for recurrent left atrial appendage (LAA) thrombo-
sis occurring 8 months after implantation of an Amplatzer
Cardiac Plug device.

The indication for LAA closure was paroxysmal atrial
fibrillation with high thromboembolic risk (CHA2DS2-Vasc
score, 4) and a history of intracranial bleeding 6 months
previously under vitamin K antagonist with an international
normalized ratio ranging from 2 to 3. The Amplatzer Cardiac
Plug device (No. 28) was successfully implanted with the use
of x-ray and transesophageal echocardiography. Considering
neurological bleeding risk, only low-dose aspirin was deliv-
ered at discharge.

One month after device implantation, the patient remained
asymptomatic, but persistent atrial fibrillation developed.
Systematic transesophageal echocardiography and cardiac
computed tomography showed a voluminous thrombus in
the left atrium despite correct position without residual leak
through the LAA occluder (Figure 1). Regarding the bal-
ance between bleeding and thromboembolic risk, dabigatran
was started at a low dose (110 mg twice a day). After this
therapy, transesophageal echocardiography and computed
tomography control at 1 month revealed a complete prosth-
thesis endothelialization under anticoagulation without residual
thrombosis (Figure 2). Dabigatran was stopped, and 1 month
later, computed tomography control found a recurrent volum-
inous thrombus in the same position (Figure 3). Dabigatran
was restarted for an indefinite period, and the last computed
tomography control (3 months later) showed partial regression
of thrombosis (Figure 4).

LAA thrombosis after successful device implantation is
uncommon. This observation demonstrates that close moni-
toring of an LAA occluder device is required before anticoag-
ulation or dual platelet therapy is withdrawn. Antithrombotic
therapy should probably be continued until complete device
endothelialization occurs to avoid thrombus formation.
However, the exact type and duration of antithrombotic ther-
apy remain to be clearly defined.

Disclosures
None.
Figure 1. Voluminous thrombus (arrows) developed in the left atrium from the Amplatzer Cardiac Plug device detected by computed tomography (left) and transesophageal echocardiography (right).

Figure 2. Computed tomography (left) and transesophageal echocardiography (right) control 1 month after the start of anticoagulation therapy showed complete regression of thrombosis.

Figure 3. Computed tomography control 1 month after dabigatran discontinuation showed recurrence of the voluminous thrombus (arrow) in the left atrium.

Figure 4. Incomplete regression of left atrial appendage occluder device thrombosis (arrows) on the last computed tomography control.
Left Atrial Appendage Occluder Thrombosis After Successful Implantation
Julien Ternacle, Nicolas Lellouche, Jean-François Deux, Hassan Hosseini, Emmanuel Teiger and Pascal Lim

Circulation. 2014;129:2576-2577
doi: 10.1161/CIRCULATIONAHA.114.009330
Circulation is published by the American Heart Association, 7272 Greenville Avenue, Dallas, TX 75231
Copyright © 2014 American Heart Association, Inc. All rights reserved.
Print ISSN: 0009-7322. Online ISSN: 1524-4539

The online version of this article, along with updated information and services, is located on the World Wide Web at:
http://circ.ahajournals.org/content/129/24/2576

Permissions: Requests for permissions to reproduce figures, tables, or portions of articles originally published in Circulation can be obtained via RightsLink, a service of the Copyright Clearance Center, not the Editorial Office. Once the online version of the published article for which permission is being requested is located, click Request Permissions in the middle column of the Web page under Services. Further information about this process is available in the Permissions and Rights Question and Answer document.

Reprints: Information about reprints can be found online at:
http://www.lww.com/reprints

Subscriptions: Information about subscribing to Circulation is online at:
http://circ.ahajournals.org//subscriptions/