A 64-year-old woman presented to clinic with 2 months of episodic chest tightness at rest, which would last several minutes before spontaneous resolution. Her pertinent medical history included tobacco abuse, hypertension, and hypothyroidism. In addition, she had resection of a left atrial myxoma in the year 2000, after she presented with similar chest discomfort. That procedure involved resection and a patch repair of a wide-based myxoma with negative margins from the interatrial septum. Her cardiac catheterization before resection had revealed minimal coronary artery disease.

Computed tomographic angiography revealed no significant epicardial coronary artery disease, but noted a pedunculated mass attached to the interatrial septum (Figure 1). Transesophageal echocardiography revealed that this was an isolated, highly mobile mass arising from the atrial septum with a long stalk and a head characteristic of myxoma (Figure 2, Movie I in the online-only Data Supplement, and Figure 3A, Movie II in the online-only Data Supplement). There was no involvement or compromise of the mitral valve.

Because of a suspicion of recurrent myxoma and the risk for embolic phenomenon, the patient was taken for resection of the entire interatrial septum, including the old patch, with the use of a right atrial approach (Figure 3B). The gross specimen appeared identical to the 3D transesophageal echocardiography images, suggesting no interval embolism from the mass. The patient tolerated the procedure, and her atypical chest pain resolved.

Pathology of multiple sections through the lesion revealed no evidence of myxoma recurrence. The base of the mass (Figure 4) consisted predominantly of fibrin with neutrophils in sheets and associated granulation tissue (Figure 5). A giant-cell response was noted around the old sutures and
focal, mural myxoid change was present, but no neoplastic process could be identified. Her old myxoma specimen was reviewed (Figure 6), showing the characteristic cleared neoplastic myxoma cells. The extensive sheets of neutrophils seen on the current specimen raised the possibility of infection, but no organisms were seen on gram or alternative stains. On questioning, the patient denied dental intervention, surgery, or known bacteremia in the year prior to presentation.

This case demonstrates an unusual macroanatomic appearance of granulation tissue mimicking recurrent myxoma. A history of previous myxoma at the same site warranted careful histopathologic examination of the entire lesion before ruling out recurrence. It is unclear why this patient had a delayed inflammatory response with thrombus at the site of prior resection and patch repair. Several case reports demonstrate a thrombus mimicking myxoma, but this may be the first report of organized granulation tissue mimicking myxoma at the site of a previous myxoma resection.

Acknowledgments
The authors gratefully acknowledge Barbara Danek, Joe Grundle, and Katie Klein for the editorial preparation of the manuscript and Brian Miller and Brian Schurrer for their help in preparing illustrations.

Disclosures
None.

Reference

Figure 3. A, Real-time 3D transesophageal echocardiography characterized this highly mobile structure well, due to adequate temporal resolution and lack of dependence on gating (Movie II in the online-only Data Supplement). B, The corresponding view of the gross specimen reveals the pedunculated mass extending from healthy-appearing endothelium on a fatty, thickened septum. Part of the prior patch repair and sutures are visible to the left.

Figure 4. Low-power microscopy through the base of the pedicle reveals sheets of neutrophils with necrosis, granulation tissue, and formed thrombus.

Figure 5. High-power microscopy within the lesion reveals inflammatory-appearing granulation tissue with neutrophils (blue) and thrombin (pink). There were areas of myxoid change in some of the multiple sections, but absolutely no neoplastic cells to suggest myxoma or other malignancy.

Figure 6. High-power microscopy of the patient’s initial myxoma lesion in October 2000 revealed the characteristic cleared myxoma cells. These findings were absent on all slides of the current lesion.
Organized Granulation Tissue Mimicking Left Atrial Myxoma Recurrence
Vincent P. Keating, Khawaja A. Ammar, Darly M. Knoedler, Daniel P. O'Hair and Steven C. Port

Circulation. 2011;124:e409-e410
doi: 10.1161/CIRCULATIONAHA.111.033167
Circulation is published by the American Heart Association, 7272 Greenville Avenue, Dallas, TX 75231
Copyright © 2011 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/124/16/e409

Data Supplement (unedited) at:
http://circ.ahajournals.org/content/suppl/2011/10/12/124.16.e409.DC1

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/