A 65-year-old woman with terminal liver disease and portal hypertension secondary to alcohol-induced cirrhosis underwent an elective transjugular intrahepatic porto-systemic shunt procedure. A self-expanding, 100×80-mm Nitinol (Jomed AG) stent was implanted and extended cranially using an additional 40×12-mm Wallstent (Boston Scientific). During the same admission, she was evaluated and accepted for liver transplantation, which was performed 4 days later when an organ was available. In the explanted liver, one patent intraparenchymal stent was described by the pathologist. Three weeks after surgery, she was referred to a rehabilitation facility. The new organ showed good function, but she had a recurrence of ascites that was managed medically, and she returned home 6 weeks after liver transplantation. In the seventh postoperative week, however, the amount of ascites increased, which necessitated the drainage of several liters of peritoneal fluid. About 8 weeks after surgery, she became increasingly dyspneic. A chest radiograph at that time showed no evidence of pleural effusion or consolidation but, surprisingly, it did reveal a radio-opaque stent-like structure projected over the right ventricle. Doppler echocardiography (Figure 1 and 2) was performed, and it revealed a stent in the right ventricle caught within the subvalvular tricuspid apparatus, leading to severe tricuspid regurgitation.

The stent was removed at surgery, and the tricuspid valve was reconstructed because the stent had perforated the septal leaflet. She had an uneventful postoperative recovery, without recurrence of ascites.

It was concluded that the second Wallstent had dislodged during the perioperative period, most likely during the transplantation itself. In retrospect, the stent was seen on the first postoperative chest radiograph performed on the day of surgery.
Figure 1. A, Apical 4-chamber view by transthoracic echocardiography. Right ventricle (RV) and right atrium (RA) are enlarged. Stent (arrow) is caught horizontally within subvalvular tricuspid apparatus. B, View perpendicular to that in A. LV indicates left ventricle; LA, left atrium.

Figure 2. Apical 4-chamber color Doppler recording (same view as that shown in Figure 1A) demonstrating a broad and turbulent regurgitant jet in systole extending from tricuspid valve (large arrow) to superior wall of right atrium (RA), indicating severe tricuspid regurgitation. Note perfusion (blue color) of stent (small double arrow). RV indicates right ventricle.
Migration of Intrahepatic Portosystemic Stent into Right Ventricle: An Unusual Cause of Tricuspid Regurgitation
Andre Z. Linka and Rolf Jenni

Circulation. 2001;103:161-162
doi: 10.1161/01.CIR.103.1.161

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/103/1/161

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/