

Acupuncture Needle in the Heart

Daniel R. Sanchez, MD
Jason S. Bradfield, MD
Mahmoud I. Traina, MD
Robin Y. Wachsner, MD

A 57-year-old woman with diabetes mellitus, hypertension, and hyperlipidemia presented at the emergency department with chest pain. She had experienced this sharp, nonexertional, nonpleuritic, nonreproducible pain for approximately 10 years, and it had recently worsened.

A chest radiograph showed a linear metallic object in the heart. Echocardiograms (Fig. 1) and computed tomograms (Fig. 2) revealed that the object was in the right ventricular outflow tract and traversed the interventricular septum, with no evidence of pericardial effusion. The object was well seen on fluoroscopy (Fig. 3). Right ventriculograms revealed no left-to-right shunt and confirmed the location of the object (Fig. 4). An attempt to snare it percutaneously was unsuccessful.

The patient underwent surgery to remove part of the foreign object—a heavily calcified and oxidized acupuncture needle approximately 5 cm long. The needle could not be entirely removed without extensive dissection.

Subsequently, the patient reported a history of acupuncture therapy more than 10 years earlier; however, she had experienced no known complications after those ses-

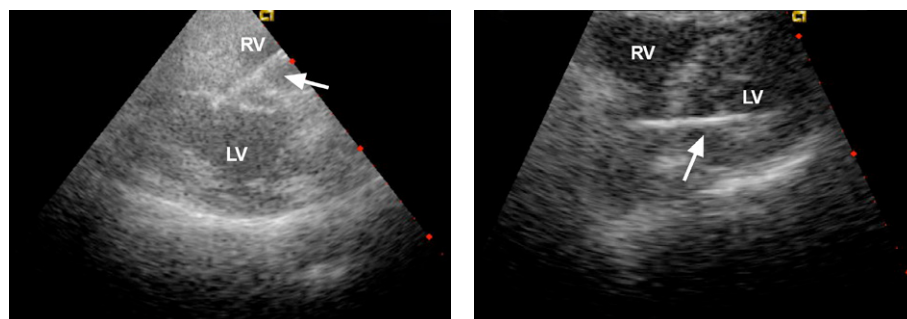


Fig. 1 Transthoracic echocardiograms in **A**) parasternal long-axis and **B**) subcostal short-axis views show a linear metallic object (arrows) traversing the interventricular septum.

LV = left ventricle; RV = right ventricle

Section Editor:

Raymond F. Stainback, MD,
Department of Adult
Cardiology, Texas Heart
Institute, 6624 Fannin St.,
Suite 2480, Houston, TX
77030

From: Division of Cardiology,
Olive View-UCLA
Medical Center, Sylmar,
California 91342

Address for reprints:

Daniel R. Sanchez, MD, Di-
vision of Cardiology, Kaiser
Permanente Los Angeles
Medical Center, 2nd fl.,
1526 N. Edgemont St.,
Los Angeles, CA 90027

E-mail: sanchezdr@gmail.
com

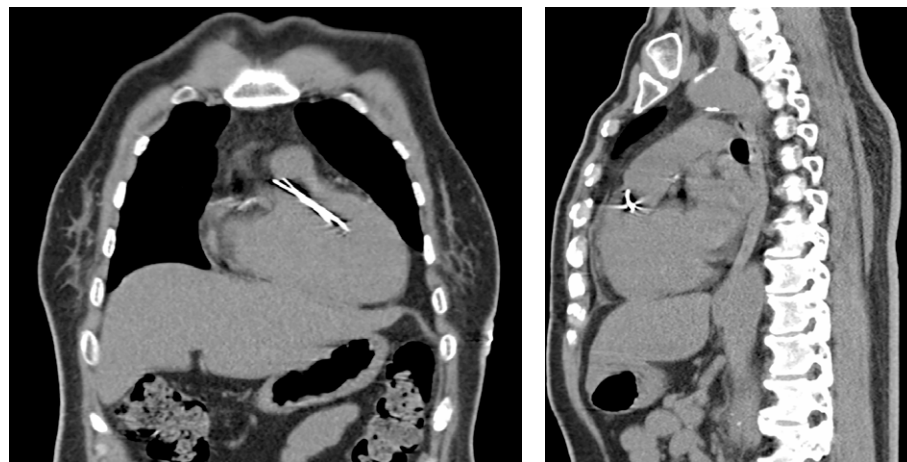


Fig. 2 Noncontrast computed tomograms in **A**) coronal and **B**) sagittal views show a linear metallic object in the anterior heart, traversing the right ventricular outflow tract.

© 2017 by the Texas Heart®
Institute, Houston

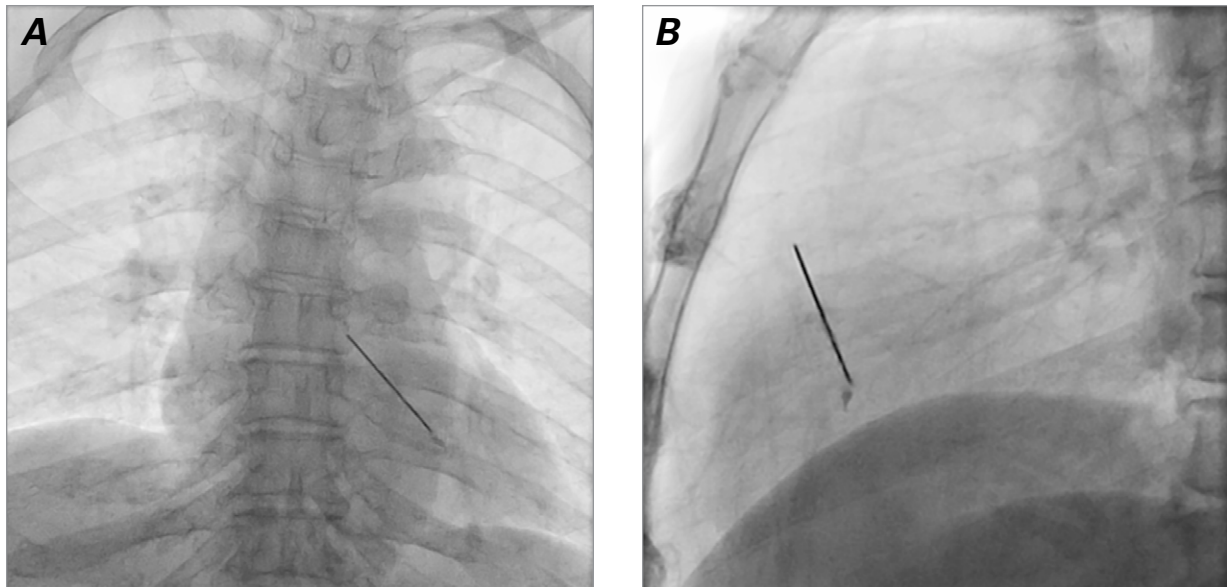


Fig. 3 **A)** Anteroposterior and **B)** lateral fluoroscopic views show a linear metallic object in the anterior heart.

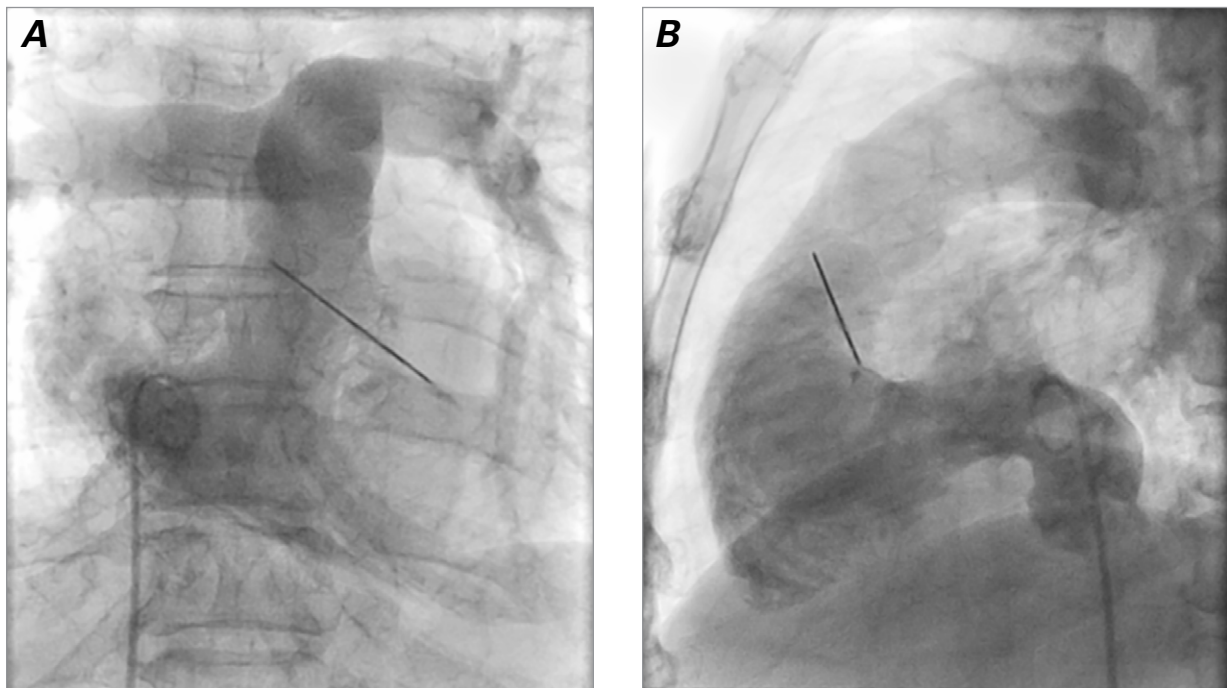


Fig. 4 Right ventriculograms in **A)** anteroposterior and **B)** lateral views show a linear metallic object traversing the interventricular septum into the right ventricular outflow tract, with no evidence of a left-to-right shunt.

sions. Postoperatively, she was lost to follow-up, and it is unknown whether her symptoms resolved.

Comment

Although acupuncture is generally considered to be safe, reported sequelae have ranged from infections to internal organ injuries. Cardiac complications have included syncope and tamponade.^{1,2} Acupuncture-needle embo-

lization to the right ventricle was reported in an asymptomatic patient in 2006.³ In that case, the needle was fine and short (length, 5–10 mm)—far smaller than that in our patient's case.

Our patient's chest pain may have been related to this relatively large needle in her heart. Clinicians and patients should be aware that acupuncture needles might embolize to the heart, with symptoms perhaps presenting years later.

References

1. Lao L, Hamilton GR, Fu J, Berman BM. Is acupuncture safe? A systematic review of case reports. *Altern Ther Health Med* 2003;9(1):72-83.
2. Xu S, Wang L, Cooper E, Zhang M, Manheimer E, Berman B, et al. Adverse events of acupuncture: a systematic review of case reports. *Evid Based Complement Alternat Med* 2013; 2013:581203.
3. Kim YJ, Kim JY, Choi BW, Nam JE, Kim TH, Choe KO. Images in cardiovascular medicine. Right ventricular acupuncture needle embolism detected on coronary computed tomography angiography. *Circulation* 2006;114(23):e623-6.