

# Percutaneous retrieval of migrated femoral vein stent from the right heart

Sasalu M Deepak, Dharmendra Sookur, Richard D Levy

## Authors

**Sasalu Marulasiddappa Deepak**  
Research Registrar in Cardiology

**Dharmendra Sookur**  
Staff Grade in Cardiology

**Richard David Levy**  
Consultant Cardiologist

**South Manchester University  
Hospitals NHS Trust,  
Wythenshawe Hospital,  
Southmoor Road, Wythenshawe,  
Manchester, M23 9LT**

**Correspondence to:**  
Dr S M Deepak  
(drdeepaksm@yahoo.co.uk)

## Key words

migration, percutaneous, retrieval,  
right heart, venous stent

*Br J Cardiol* 2008;15:55–6

**This case describes the discovery and subsequent attempts at removal of a migrated venous stent.**

## Case report

A 38-year-old man with pelvic chondro-sarcoma diagnosed in 1999 had a right femoral venous stent for extrinsic compression by the tumour in June 2004. Two months later, computed tomography (CT) scan of the chest with a view for chemotherapy unexpectedly showed the venous stent within the right heart.

Though asymptomatic, he was referred for catheter retrieval of the venous stent, as potential serious complications include thrombus formation, pulmonary embolism, sepsis, endocarditis, myocardial perforation and cardiac tamponade. Transthoracic echocardiogram showed the stent was lodged across the tricuspid valve (figures 1 and 2).

The procedure was performed with vascular and cardiothoracic surgical backup. A 14-French sheath was used via the left femoral vein. The stent was retracted down to the left iliac vein after eventually

catheterising the stent under fluoroscopy with a large loop snare (figures 3 and 4), following an initially unsuccessful attempt with a Dormier catheter. One strut was splayed in the right atrium remote from the stent prior to the start (arrow), and was not retrieved, as it was certainly endothelialised.

The stent size could not allow withdrawal without surgery and it was decided to deploy it in the left iliac vein with a 9/40 mm balloon. Thrombus was noted locally and extracted, followed by anticoagulation with heparin for 48 hours and planned warfarin for three months. Post-procedure transthoracic echocardiogram was normal.

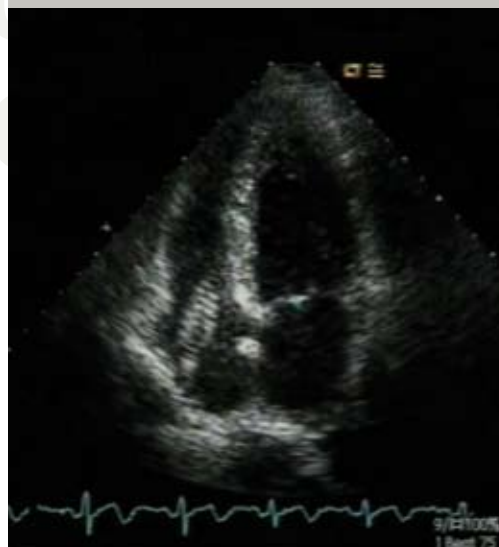
## Discussion

Venous stents can migrate into cardiac cavities or the pulmonary artery. The diameter of the stent must exceed that of the designated vein to prevent migration as respiratory movements induce great variability in the diameter of the vein ●

## Conflict of interest

None declared.

**Figure 1. Transthoracic echocardiogram: apical four-chamber view**



**Figure 2. Transthoracic echocardiogram: parasternal short axis view (aortic valve level)**



## CASE REPORT

Figure 3. Screening: right anterior oblique – caudal view

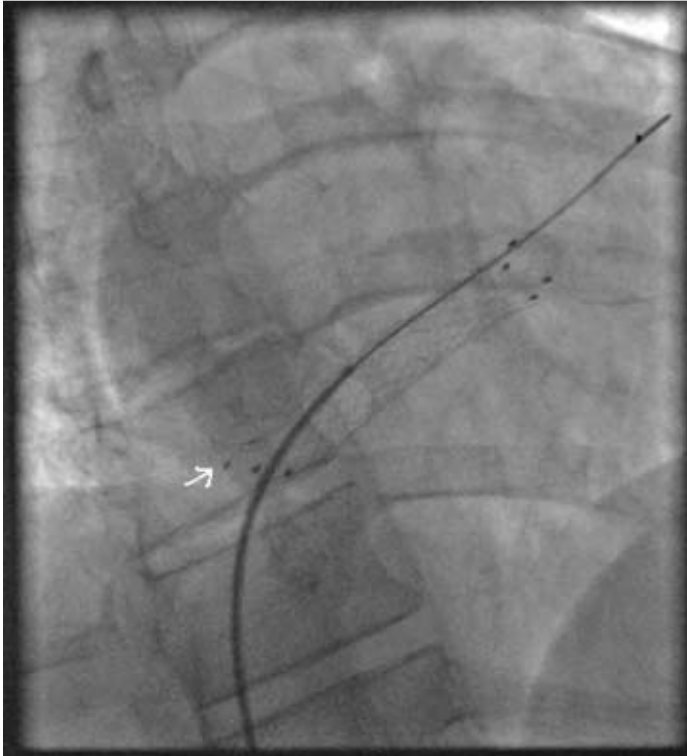
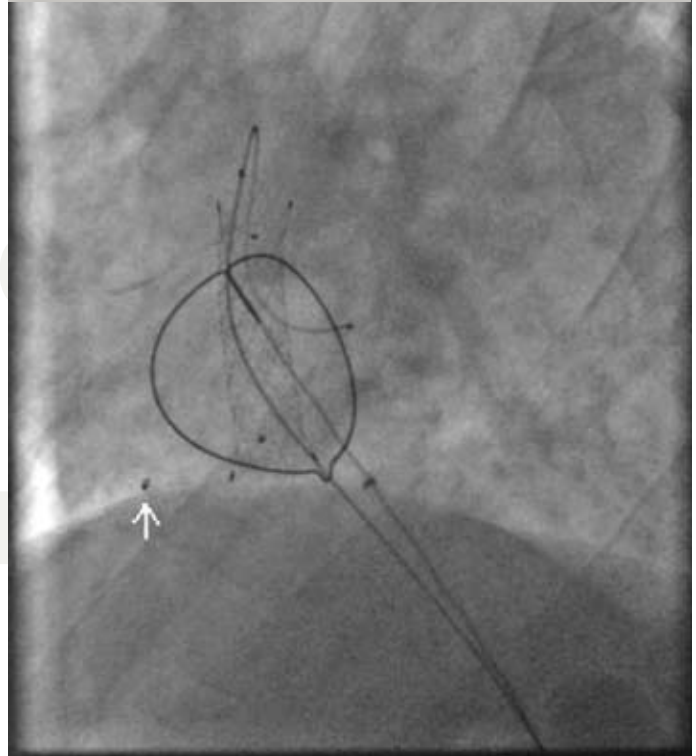


Figure 4. Screening: left anterior oblique – caudal view



## Instructions for authors

*The British Journal of Cardiology* is pleased to consider original papers, review articles and book reviews for publication, on the understanding that they have not been published or submitted for publication elsewhere; this must be confirmed in writing. Original papers and review articles are sent for peer review. Please contact the editorial office before submitting any article in excess of 2,000 words. Non-commissioned material is not paid for.

The Journal would like to encourage dialogue and feedback and letters to the editors are welcome. The editors regret that they cannot currently accept case reports

### • Manuscripts

Three copies of manuscripts, with text double-spaced, should be submitted and a copy of the file on disk where manuscripts have been prepared on computer. All articles should now include an abstract, keywords (no more than six) and key messages. Authors should state any conflict of interest. References should be arranged according to the Vancouver style.

### • Submission

- **by e-mail:** Electronic versions of manuscripts, preferably in Microsoft Word format, with text double-spaced, should be submitted to: [production@bjcario](mailto:production@bjcario).

co.uk. Communication should contain the full postal address and e-mail address of the sender, and a clear indication as to whether the correspondence is to be considered for publication. Acknowledgement of receipt will be sent by e-mail.

- **by post:** Three copies of manuscripts, with text double-spaced, should be submitted along with a copy of the file on e-mail or disk. Authors should supply the names of all the files supplied. Additional information should include: the class of computer (IBM compatible, Apple Macintosh) and the name of the programme used. Computer disks submitted will only be returned upon request.

Please do not supply PDF versions of text. The document should be created using Microsoft Word, text double-spaced with one carriage return only between paragraphs and with single spaces after punctuation marks. Spreadsheet or database files should also be supplied in both normal and ASCII format.

### • Illustrations, artwork and photographs

Illustrations should preferably be supplied on e-mail or disk as either eps, tiff or jpeg files (minimum resolution 300 dpi) along with the original file they were created in. Alternatively, good quality transparencies, prints, or print outs should be submitted. Each illustration should be on a separate page with legend clearly indicated. Where

possible, in particular in the case of graphs and charts, a copy of the source figures should be supplied on paper, e-mail or disk.

A black and white or colour head and shoulders passport-style picture of the author (for sole-authored papers only) should also be supplied in its original form (preferably no smaller than 50 mm x 70 mm) or as an eps, tiff or jpeg file at a minimum resolution of 300 dpi.

Authors wishing to supply original source material, such as CAT scans or X-Rays, should contact the BJC office in advance to make arrangements to expedite their return.

Do not write directly onto the reverse of photographs.

The author's name and the figure number should be affixed by label and the top of the picture clearly indicated. The legend should be supplied separately on a sheet of paper bearing the relevant figure number, author's name and title of the article. Avoid the use of paper clips with prints as they may scratch the emulsion surface. All submissions containing disk, artwork and illustrations should be supplied in a stiffened envelope.

### • Authors' corrections

Page proofs will be supplied to authors. Corrections should be limited to typographical amendments. Authors' approval will be assumed if corrections are not returned by the date indicated, however, a signed consent to publish form will be required. Failure to return a signed consent form to the publisher may result in delayed publication.