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Case report

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Mammoth interatrial septal aneurysm in the ICE age

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Abstract

Background: Intracardiac echocardiography (ICE) is a useful imaging modality that is now being used more widely to assist in the percutaneous closure of atrial septal defects (ASD) and patent foramen ovales (PFO).

Case presentation: A 42 year old lady with a history of transient ischaemic attacks and migraine underwent percutaneous closure of an ASD. Intraprocedural ICE demonstrated a mammoth billowing multiperforated interatrial septal aneurysm in association with a secondum ASD.

Conclusion: ICE provides excellent adjuvant imaging during percutaneous closure of intracardiac shunts, in this case demonstrating a 'mammoth' interatrial septal aneurysm.

Background

Intracardiac echocardiography (ICE) is a useful imaging modality that is now being used more widely to assist in the percutaneous closure of atrial septal defects (ASD) and patent foramen ovales (PFO).

Case presentation

A 42 year old lady with a history of previous transient ischemic attacks and migraines was found to have a secundum ASD and an aneurysmal interatrial septum on contrast transthoracic echocardiography. She then went on to undergo percutaneous closure of the ASD, during which ICE demonstrated a dramatic giant multiperforated aneurysmal interatrial septum with a secundum ASD on Doppler flow imaging (Figures 1, 2, 3).

Discussion

An aneurysmal interatrial septum is thought to be the harbinger of potential embolic thrombus and its presence increases the risk of a stroke significantly particularly in association with a PFO and is thus of clinical importance [1]. Adjuvant ICE imaging has permitted such cases to be performed as a same day discharge procedure without the need for general anaesthesia and provides detailed imaging to enable rapid, accurate closure of intracardiac lesions.

Conclusion

This case demonstrates a "mammoth" billowing multiperforated interatrial septal aneurysm in association with a secondum ASD and illustrated elegantly by ICE.

Competing interests

The author(s) declare that they have no competing interests.

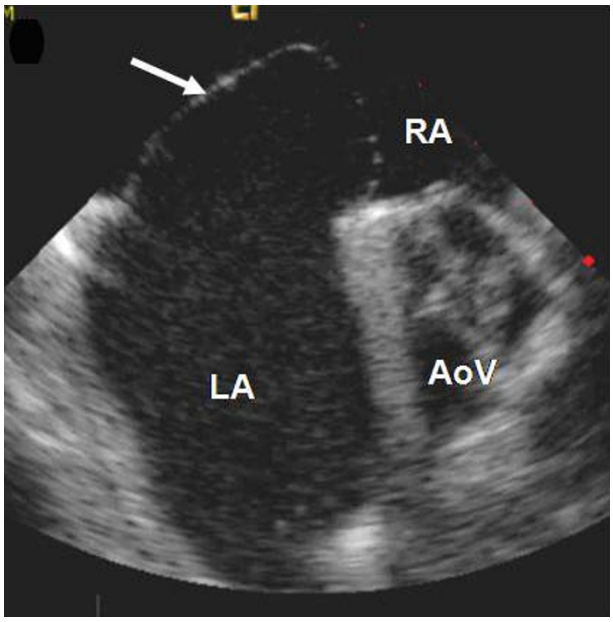

Figure 1
Image obtained using intracardiac echocardiography (ICE): Demonstrating a large interatrial aneurysm (arrow) billowing into the right atrium (RA) with an excursion of over 22 mm.

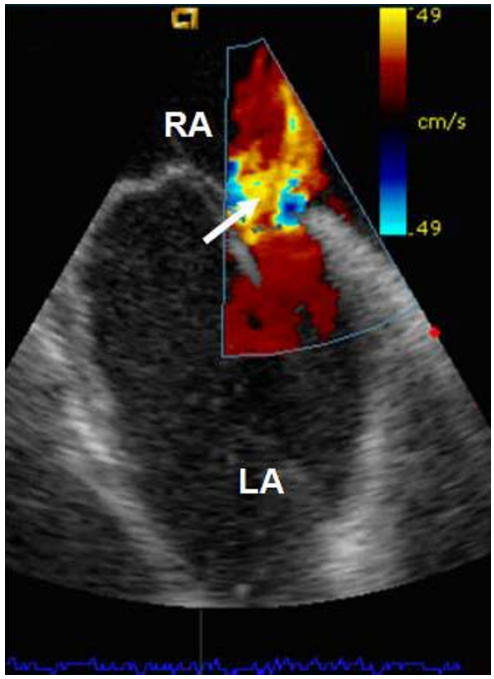

Figure 2
Image obtained using intracardiac echocardiography (ICE): With colour flow mapping (arrow) of the interatrial septum demonstrating a large ASD with shunting.

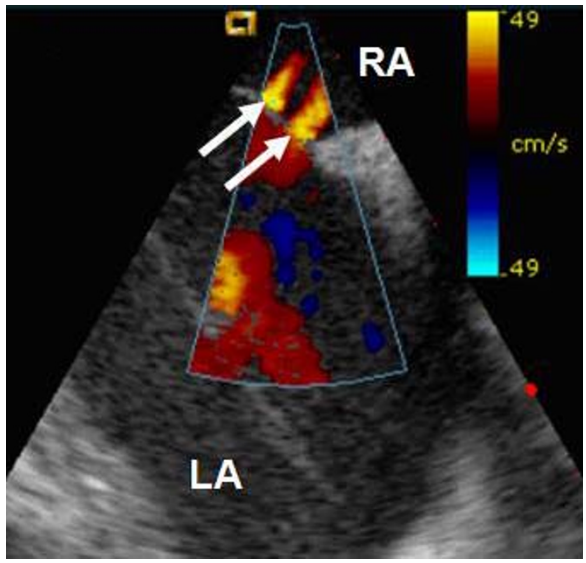

Figure 3
Image obtained using intracardiac echocardiography (ICE): With colour flow mapping of the interatrial septum demonstrating 2 jets (arrows) across the septum.

Authors' contributions

All authors contributed to the preparation of this manuscript.

References

1. Mas JL, Arquizan C, Lamy C, Zuber M, Cabanes L, Derumeaux G, Coste J: **Patent Foramen Ovale and Atrial Septal Aneurysm Study Group: Recurrent cerebrovascular events associated with patent foramen ovale, atrial septal aneurysm, or both.** *N Engl J Med* 2001, **345:**1740-6.