

## Saddle Shape of Mitral Valve Annulus: Three-Dimensional Transthoracic Echocardiography

Marcelo Luiz Campos Vieira\*, Prasad Maddukuri\*\*, Natesa G. Pandian\*\*, Wilson Mathias Jr.\*, José Antônio F. Ramires\*

\*Instituto do Coração do Hospital das Clínicas – FMUSP e \*\* Tufts University – New England Medical Center, São Paulo, SP, Brazil - Boston, MA, USA

We are describing the case of volunteer, 28 years old, male, submitted to transdimensional transthoracic echocardiographic investigation (3D echo). Cardiac anatomy showed to be normal. 3D echo analysis allowed the identification of saddle shape of mitral valve annulus (Fig. 1A

and Fig. 1B), which had not been identified by bidimensional echocardiography. Three-dimensional echocardiography is an imaging investigation method that leads to advancement towards anatomic and diagnostic analysis<sup>1,2</sup>.

This study was supported by CAPES, Brasilia, DF, Brazil.

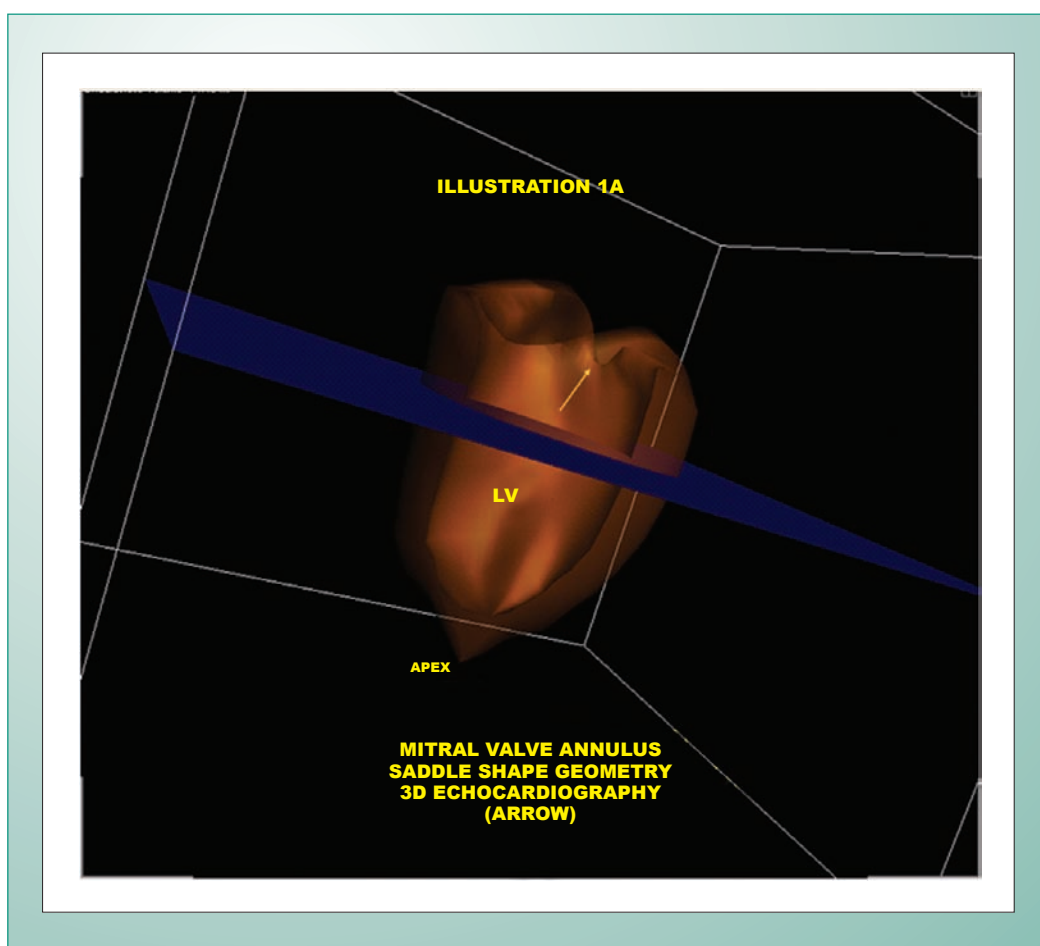


Fig. 1A - Three-dimensional transthoracic echocardiogram (3D) (longitudinal, apical projection), showing saddle shape of mitral valve annulus (arrow). LV- left ventricle.

### Key words

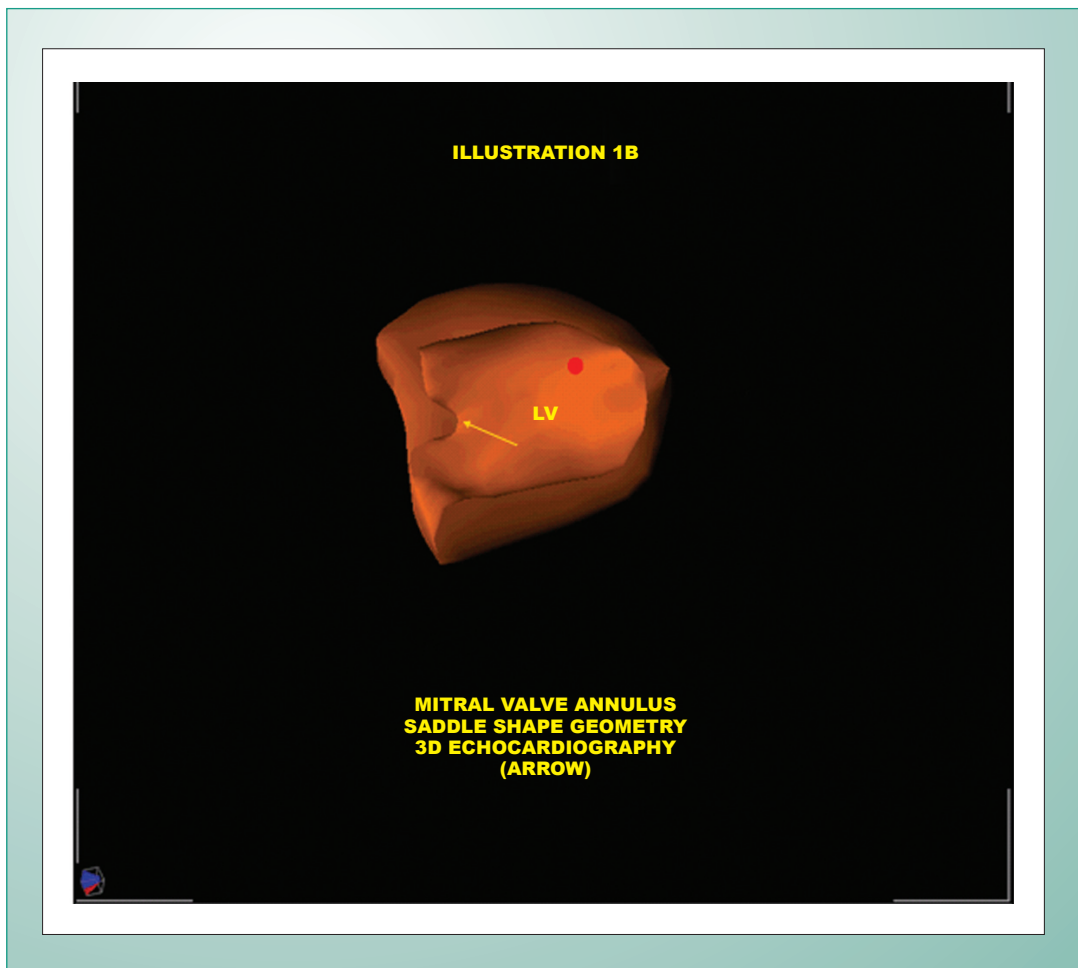
Echocardiography, three-dimensional echocardiography, mitral valve, anatomy.

Mailing Address: Marcelo Luiz Campos Vieira •

Rua Cardoso de Melo, 463/21 - 04548-002 – São Paulo, SP, Brazil

E-mail: mluiz766@terra.com.br

Manuscript received October 11, 2005; revised manuscript received October 17, 2005; accepted October 17, 2005.



**Fig. 1B** - Three-dimensional transthoracic echocardiogram (3D) (paraesternal, apical projection), showing saddle shape of mitral valve annulus (arrow). LV- left ventricle.

## References

1. De Castro S, Salandin V, Cartoni D, et al. Qualitative and quantitative evaluation of mitral valve morphology by intraoperative volume rendered three-dimensional echocardiography. *J Heart Valve Dis* 2002;11(2):173-80.
2. Kwan J, Shiota T, Agler DA, et al. Geometric differences of the mitral apparatus between ischemic and dilated cardiomyopathy with significant mitral regurgitation: real-time three-dimensional echocardiography study. *Circulation* 2003;107(8):135-40.