Reviewer’s report

Title: Iatrogenic left ventricular-right atrial communication after tricuspid annuloplasty; A case report

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Reviewer: Euclides Tenorio

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The Review

There are two principal surgical methods to treat tricuspid regurgitation: Ring annuloplasty, as introduced by Carpentier et al. (1), and the suture annuloplasty method, mostly performed as described by De Vega and associates (2).

Although both rigid and flexible system provide acceptable results for Tricuspid valve repair.

Anatomically the annulus of the tricuspid valve is not visible, and is a heterogenous, almost virtual, structered composed of intermixed fibrotic and elastic fibers in continuity with the leaflet tissue; the atrium and the ventricle. As a result, a portion of the interventricular septum, the membranous septum, separates the left ventricle from the right atrium. This region is very thin and delicate. For the suture in this area is necessary to keep in mind, that there is the left ventricular outflow tract and the aortic root. If the surgeon introduced profoundly the needle in this region, special care should be taken not to injure the left ventricular outflow or the aortic root.

This can be achieved by visualizing the ring of the anterior segment and by placing suture with the tip of the needle always oriented towards the right ventricle. When you used a ring there is a important and strong tension in this region.

Ton-Nu and et al. (3) demonstrated that tricuspid dilatation occurs mainly in the free wall of the tricuspid annulus at the middle part of the anterior leaflet and extending to the septal part of the septal leaflet.

Congratulated the authors to identify the shunt on time and repaired with a pledgeted mattress suture.


**Declaration of competing interests:**

I declare that I have no competing interests