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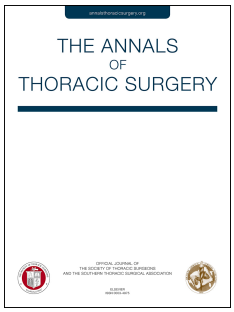

Cor-Knot Perforation of Aortic Valve Leaflet

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Cor-Knot Perforation of Aortic Valve Leaflet

To the Editor:

I read the recent article by Brescia, et al[1], and the correspondence from Hector Rodriguez Cetina Biefer, M.D[2]., detailing their experience with Cor-Knot (LSI solutions, Victor, NY) perforation of the anterior leaflet of the mitral valve.

I have used Cor-Knots on both aortic and mitral valve replacements performed via a median sternotomy technique for the last four years. I am unaware of any mitral valve injury secondary to the Cor-Knots, but have a patient who developed moderate aortic insufficiency beginning 7 months after aortic valve replacement with a 21 mm St. Jude Trifecta (St. Jude, Minneapolis, MN) bioprosthesis. Over the next several months, aortic insufficiency progressed to severe. The echocardiographic studies demonstrated that the leak was not para-valvular, but related to the prosthesis itself. The patient required re-do procedure and the explanted prosthesis is seen in Figure 1. The leaflet perforation was felt to be secondary to a medially directed Core-Knot.

Since this single experience with the aortic valve, I have been careful to have the Cor-Knot deployment device oriented with the fastener away from the prosthesis. I have not seen another occurrence since being meticulous with the Cor-Knot device.

The affected patient had a small annulus, and narrow outflow track, which may have contributed to the Cor-Knot perforating the leaflet when it was in the open position during systole.