

MEETING ABSTRACT

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Off pump mitral valve repair

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From World Society of Cardiothoracic Surgeons 25th Anniversary Congress, Edinburgh
Edinburgh, UK. 19-22 September 2015

Background/Introduction

The NeoChord DS1000 is a disposable device used to replace damaged chordae by delivering artificial chordae tendinae in a beating heart through small anterolateral thoracotomy. It gives alternative approach in treating degenerative mitral valve insufficiency.

Aims/Objectives

To assess safety and efficacy in treating patients with off-pump transapical neochoord implantation in Vilnius University.

Method

60 patients had underwent off pump transapical neochoord implantation. Patients were followed up to 1 year with clinical and echocardioscopic examination.

Results

Out of 60 patients 48 (80%) had chordae implanted only to P2 segment. 2 (3%) patients had chordae implanted only to A2 segment. All other patients had chordae implanted to multiple segments. The average patient age was 60 ± 12 years, Euroscore II - $1,2 \pm 1\%$. Median duration of operation was 129 ± 27 min. The mean intraoperative blood loss was 700 ± 500 ml, mean post-operative drainage was 230 ± 120 ml. Three (6%) patients needed RBC transfusion, 1 (2%) patient needed FFP transfusion. One patient required permanent pacemaker implantation due to sick sinus syndrome. There were no re-explorations for bleeding, strokes, new renal failure, wound infections or deaths. Acute procedure success was achieved in 58 (97%) of patients. 52 patients had reached 6 months follow up and 33 patients have reached 12 months follow up. In patients with P2 prolapse without prolapse extension towards the commissures or central component to regurgitant jet or lack of

central cooptation the mitral valve insufficiency less than 2+ remained in 94% (36 out of 38) patients at six months and 92 % (22 out of 24) at 12 months follow up. In patients with prolapse extension towards the commissures or with central component to regurgitant jet or lack of central cooptation the mitral valve insufficiency less than 2+ was achieved in 50% (6 out of 12) patients at six months and 50% (4 out of 8) at 12 months follow up.

Discussion/Conclusion

Off-pump transapical implantation of artificial chordae with NeoChord device is a safe method for the treatment of mitral valve insufficiency and preserves conventional MV repair treatment options if unsuccessful.

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Published: 16 December 2015

doi:10.1186/1749-8090-10-S1-A318

Cite this article as: Rucinkas et al.: Off pump mitral valve repair. *Journal of Cardiothoracic Surgery* 2015 **10**(Suppl 1):A318.

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