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P48 New Surgical Technique for Stentless Aortic Valve Replacement

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OBJECTIVE: The native aortic valve can be explained with rules of the equal side triangle. In pathologic condition, because of the flow influence there is a distortion on such a way that every aortic valve leaflet is different size. Mostly in the cases non coronaria leaflet is the biggest one because the spirals flow of the blood. With this study we evaluated clinical results of stentless 3leaflets pericardial patch in patients undergoing aortic valve replacement

METHODS: We created this stentless valve using bowine/equine pericardium, replacing valve cusps on aortic fibrous ring of patient. This valve was made from same pericardium from which other biologic valve prosthesis are done. Our aortic valve is called really stentless, because the new created leaflets are directly sutured on the patient's native aortic ring. The ring of patient's aorta was used as guide for sizing this valve. Leaflets are implanted separately; using continuous sutures with 2 supported stitches at newly created commissurae, without a stent or sowing ring. Patients with aortic valvular stenosis have been included. Excluding criteria were postenotic aneurysmatically changes of the ascending aorta as well as aortic anuly ring dilatation. Intraoperative and postoperative TEE was performed for every created valve.

RESULTS: 42 pts with aortic valvular disease had been included in study. 21 of them got bowine and 21 equine perivardium created leaflets. Middle aorta cross clamping time was 71.94 min, and bypass time 112.33 min. 4 patients got a aortocoronary bypass in combination (2.3 grafts per pts) 1 patient developed middle aortic regitation. Mortality rate was 9.5% (4 pts). Follow up period 1-19 months.

CONCLUSIONS: Real stentless aortic valve bio prosthesis ensures haemodynamic improvement with a small transvalvular gradient in pts. It can be implanted even in patients with small root or with bicuspid valve, with good clinical outcome.