March 3, 2012 / 13:30-15:00 SURGICAL TECHNIQUES IN MOTION – VIDEO PRESENTATIONS

VP-015 NEW TECHNIQUE IN MITRAL VALVE REPAIR. ARTIFITIAL CHORDS WITH NO KNOTS ON THE CUSP

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OBJECTIVE: Mitral valve repair techniques are widely applied in patients with myxomatous valve disease. The use of artificial chords is now one of the most basic parts of the repair in many surgeons hands. Achieving correct height adjustment of the prolapsing leaflet segment can often be challenging, leading to introduction of many different techniques to use these chords. A common problem in most of these techniques is leaving heavy Gortex knots on the atrial or ventricular side of the leaflet edges, causing minor coaptation defects and also misleading the echocardiographers post-operatively. We have developed a new technique which is used to adjust the proper length for the chords without leaving any knots on the cusps.
METHODS: The technique has been used by minimally invasive surgery in 21 patients in the year 2011 among 64 other minimally invasive surgeries. The artificial chords are first fixed to the cusp edges in a figure of 8 locked fashion. The two free limbs of the sutures are then passed through the papillary muscle and tied over Teflon pledgets while the surgeon has put the cusp edge at the level of the annulus to have the proper length of the chords. A Liga clip which is put on the chords before the ties prevents over-correction of the repair. Some other procedures which were done in conjunction included triangular and quadrangular resections,hair cut trimming and sliding plasty.
RESULTS: The repair result was satisfactory in all patients with only trivial regurgitation in 3 patients.The smooth coaptation surface was appreciable during echocardiography. No related complication ocurred in any patient.
CONCLUSIONS: This technique can be used as a simple and re-producible technique for insertion of artificial chords. The video film will show the detailed technique in a few patients in combination with different adjunct procedures.

VP-016 THE SURGICAL VIDEO PRESENTATION OF 'POSTERIOR- ANTERİOR CHORDAL TRANSFER AND SLIDING ANNULOPLASTY TECHNIQUE' PERFORMED IN BOVINE HEART MODEL IN HOME ALONE IN MITRAL VALVE REPAIR TRAINING

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OBJECTIVE: The importance of surgical simulation has been increasing quickly in modern surgical training. Prior to operating in human hearts, practice in appropriate experimental models is necessary to reach an adequate experience. We present the surgical video, being 'posterior- anterior chordal transfer and sliding annuloplasty technique' which was performed in bovine heart model.
METHODS: The aorta was closed with a running 3-0 silk suture to prevent leakage from aortic valve during the saline test after mitral valve repair procedure, and atrial retractors were fixed to the left atrial wall with three or four simple sutures. Afterwards, primary chords of A2 scallop were cut to create lesion, then mitral valve apparatus was examined again with saline test. The prolapsing segment of anterior leaflet, causing regurgitation, can be easily distinguished. The prolapsing segment of A2 scallop was marked with two stay sutures. Then primary chords of P2 scallop to be transferred, were marked with two stay sutures also. Subsequently, primary chords of P2 were sewn to the A2 scallop. Then, the remnant of P2 scallop was resected, and P1 and P3 scallops were detached from the posterior annulus. It can be easily seen that there were two indentations. The first one is between P1 and P2 remnant. The second one is between P2 remnant and P3 scallop. Both indentations were closed with interrupted sutures and the gap which was previously created by performing quadrangular resection was closed with interrupted sutures. It was analyzed that there were not enough posterior leaflet tissue and it was decided to perform patch augmentation. After completing augmentation saline test was performed again. It can be distinguished that there was not any regurgitation. Afterwards, ink test was performed to be measured the coaptation depth. It was about 10 mm between anterior and posterior leaflet.
RESULTS: By focusing on components of surgical technique by using partial-task trainers and practice outside the operating room, surgeons can improve their basic technical skills and thus maximize their clinical experience in newly performed techniques.
CONCLUSIONS: Mitral valve repair techniques can be performed and experimented in animal heart models in home alone.

VP-017 INITIAL EXPERIENCE WITH THE JETSTREAM™ PATHWAY DEVICE FOR FEMORO-POPLITEAL DISEASE

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OBJECTIVE: To report safety and efficacy of Jetstream™ Pathway rotational atherectomy/ thrombectomy device for the treatment of femoro-popliteal arterial lesions with special emphasis on rate of re-intervention and intervention free period.
METHODS: Duration of study is from Mar 2008 to Nov 2009 (21Months). Total numbers of patients is 86. Males are 55(64%) & Females are 31(36%). Age range is 36 to 87 Years. All patients underwent Pathway Atherectomy during this time period