**ANALYSIS OF MORBIDITY, MORTALITY AND RISK FACTORS IN PATIENTS UNDERGOING MITRAL VALVE REPLACEMENT WITH ‘CONTINUOUS SUTURE TECHNIQUE’**

**S.K. Singh**, V. Devenraj, S.K. Dwivedi, D. Kaushal, A. Kumar, V. Tewarson,

T. Goyal, S. Kumar, N. Rajput, S. Kumar

CSM Medical University, Lucknow, India

Background: Mechanical valvular prosthesis and suturing techniques for implantation have undergone tremendous improvements over the time. The aim of our study was to analyze morbidity, mortality and various risk factors in patients undergoing mitral valve replacement with continuous suture technique.

Methods: From January 2008 till September 2011, 71 patients underwent isolated mitral valve replacement with continuous suture technique using 2-0 prolene suture. The study was prospective and the database was maintained by medical record section of the hospital. The statistical analysis was done using SPSS - version 15 software and values were represented in number (%) and Mean ± SD.

Results: Age, gender, body mass index, type or severity of lesion were not found to be significant risk factors. NYHA class IV (p=0.006), Atrial fibrillation (p=0.025), left atrial enlargement (p<0.05), left atrial clot (p<0.001), poor ejection fraction (p<0.001) were found to be significant preoperative risk factors for increased morbidity and mortality. Decrease in cardiopulmonary bypass time (average - 50.73+12.48 minutes) and aortic cross clamp time (average 29.86+8.81 minutes) resulted in faster patient recovery in ICU. Postoperative blood loss (average 258.31+172.53 ml) and blood product requirement (average 0.94+0.843 units/ case) was also less. Ten patients died during the study period.

Conclusion: Decreased cardiopulmonary bypass time and aortic cross clamp time leading to improved and shorter ICU course, better hematological parameters and reduced blood transfusion units with comparable morbidity and mortality and cost effectiveness, mandates use of ‘continuous suture technique’ for mitral valve replacement.