Early clinical results of perceval suture-less aortic valve in 139 patients: Freeman experience

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Statement of the Problem: The aim of this retrospective study is to evaluate the safety and performance of the perceval suture-less valve in patients undergoing aortic valve replacement (AVR). We report the 30-day clinical, echocardiographic and hemodynamic outcomes of 139 patients.

Methodology & Theoretical Orientation: From January 2014 to December 2026, 139 patients underwent suture-less aortic valve replacement. Their operation notes, PACS records and per operative TOE findings were studied retrospectively. Patients with bicuspid aortic valve and abnormal STJ: annulus ratio was excluded.

Findings: 92 patients underwent isolated aortic valve replacement (group A) with perceval valve and 47 patients had combined procedures of AVR and coronary artery bypass grafting (group B). The patients received a size S (n=23), M (n=39), L (n=42) or XL (n=35) prosthesis. Perceval valve was successfully implanted in 135 patients (97.1%). Mean cross clamp and bypass time was 40 and 63 minutes for isolated cases, while it was 68 and 107 minutes for combined cases. Three patients (2.1%) died within 30 days. Four patients suffered stroke and five patients went into acute renal failure. Median ICU and hospital stay was 2 and 8.5 respectively. Four valves were explanted due to significant para-valvular leak after surgery. Five patients had permanent pacemaker as a result of complete heart block and mean post-operative drainage was 295 ml for isolated case and 457 ml for combined cases.

Conclusion & Significance: Early post-operative results showed that perceval valve is safe. It can be implanted with short cross clamp and bypass time. Further follow up is needed to evaluate the long-term outcome with this bio-prosthesis.

Biography
Syed M S Mujtaba completed his Graduation at Dow Medical College, Karachi, Pakistan in 1985 and; basic and higher Surgical training in Ireland and FRCS in 1993. He started Cardiothoracic Surgery at University Hospital Cork, Ireland in 1994. In 1997, he started his training in Cardiothoracic Surgery at Yorkshire Heart Centre, Leeds, UK. He worked for two years in Dubai as Senior Registrar. He was a Consultant Cardiac Surgeon at Liaquat National Hospital, Karachi, Pakistan and worked for three years. Then, he worked as Medical Director at Baqai Centre for Cardiovascular diseases, Karachi for a year. He worked as Clinical Fellow in Cardiothoracic Surgery for 18 months at Edinburgh Royal Infirmary in 2011. He moved to Freeman Hospital, Newcastle UK in March 2013 as Clinical Fellow and still working there. He completed his Fellowship of the Royal Colleges of Surgeons (FRCS) (CTh) in 2016.

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