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## **SURGERY OF AORTIC ROOT AND ASCENDING AORTA THROUGH AN UPPER MINISTERNOTOMY: SINGLE CENTRE-EXPERIENCE**

*Specchia Luigi MD, Nicolardi Salvatore MD PhD, Mangia Federica MD, Scognamiglio Mattia MD, Rasovic Olivera MD, Foggetti Salvatore MD, Lentini Salvo MD, Melone Marcello MD, Conti Cristina MD, Sinani Rehani MD, Gregorini Renato MD, Di Eusanio Giuseppe MD.*

*Department of Cardiac Surgery – Città di Lecce Hospital GVM, Lecce, Italy*

**Background:** minimally invasive approach through a ministernotomy for isolated aortic valve surgery is increasing, but mini-invasive surgical treatment of root and/or ascending aorta representing a challenge for many cardiac surgeons. Aim of our study is to report our initial experience for aortic surgery through a ministernotomy approach.

**Methods:** from April 2011 to December 2013, at our Department 222 procedures were performed through an upper ministernotomy; of these 72 patients were treated for aortic root and/or ascending aorta disease. Five Bentall-De Bono procedures, 21 isolated ascending aorta replacements, 45 ascending aorta replacements associated to aortic valve surgery and 1 Tirone David procedure were performed. Operative parameters and in-hospital clinical outcomes were retrospectively analyzed.

**Results:** Patients' mean age was  $62.7 \pm 13.2$  years (65.2% males). Preoperatively logistic EuroSCORE I was  $9.3 \pm 7.7$ . Mean cardiopulmonary bypass and aortic cross-clamp time were  $119.4 \pm 29.8$  and  $98.8 \pm 26.4$  minutes, respectively. No patient needed conversion to full sternotomy neither surgical re-exploration for post-operative bleeding. The mean ICU stay was  $2.7 \pm 3.7$  days. The total hospital stay was longer than 10 days in 24 patients (26.1%). Incidence of post-surgery atrial fibrillation was 13.3%. No neurological events occurred. There were no post-operative hemodynamic and renal complications neither systemic or deep wound infections. In-hospital mortality was 0%.

**Conclusions:** Our experience clearly shows that surgery of aortic root and/or ascending aorta can be safely performed through an upper ministernotomy, without compromising surgical results. Although our series is not large, hereby we demonstrated that the experience gained on the isolated aortic valve through a ministernotomy can be extended to aortic surgery as a routine practice.