

Summary of Experiences & Result of Transesophageal Ultrasound Guided Ventricular Septal Defect and Atrial Septal Defect Closure Operation

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Abstract

Analysis conducted by using Transophageal Echocardiography to monitor the therapeutic effect of closure of Ventricular Septal Defect and Atrial Septal Defect. The clinical data of 928 patients for closure operation of transthoracic, percutaneous Ventricular Septal Defect (VSD) and Atrial Septal Defect (ASD) guided by transesophageal ultrasound was retrospectively analyzed for the Department of Cardiac Macrovascular Surgery, the First Affiliated Hospital of Nanchang University between August, 2009 and August, 2019. There were 552 cases of VSD and 376 cases of ASD and 478 males and 450 females, with age distribution ranging from 4 months to 74 (8.64 ± 2.42) years old, and body mass distribution ranging from 8 to 56 (23.32 ± 12.26) kg. Result: Closure operation conducted turned out a successful one for the whole group of patients without any casualty cases and a tally of 907 were successful (97.7%). Out of 552 VSD patient in the group 540 were treated successfully with the transthoracic closure approach and 12 cases required extracorporeal circulation after failure of the transthoracic approach. Among the 256 cases, the patients with ASD was treated by transthoracic closure approach, 251 successful cases, 2 cases failed and 3 shedding cases. Besides, 120 percutaneous closure cases is carried out with 116 successful cases, 2 failing cases and 2 shedding cases. Post-operation follow-up was conducted for the patients with successful closure operations, which demonstrated that complications of aortic and tricuspid regurgitation, hydro-pericardium, IIIoatrioventricular block, shedding of closure umbrella, hemolysis and thrombus had not occurred. Intraoperative blood loss was 15ml-35ml (23.64 ± 4.26), postoperative ventilator using time was 2h-10h (4.76 ± 0.33), and hospital stay was 4d-10d (6.43 ± 1.26)

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