

Ten Years Experience of a Single Center in Percutaneous Atrial Septal Defect Closure

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Background: Nowadays percutaneous closure is preferred as treatment in pediatric ASD patients. The purposes of the study were to (a) share ten years experience of our center in percutaneous ASD closure, (b) compare the septal closure procedure using transthoracic echocardiography with the transesophageal used ones. (c) show whether transthoracic echocardiography can be sufficient in ASD closure in certain circumstances. As far as we know our study is the first study that huge number of only children patients were included in a single center.

Material Method: 340 patients whose ASD were closed between dates December 2003-August 2013 were included in this study. Physical examinations, electrocardiograms, transthoracic echocardiography, were done before the procedure and 24 hours, 1st, 3rd, 6th months after the procedure. The patients whose ASD were closed by TEE guidance compared with ones done by TTE.

Results: There was not a statistically significance in the epidemiologic features of patients between two groups. Size of device, procedure time was significantly higher in TEE group. But there wasn't a significant difference between the complication and residual shunt rates between two groups.

Conclusion: TEE procedure has certain risks in pediatric population. Therefore it shouldn't be done routinely in ASD closure; but only in selected cases. The usage of TTE must be increased and if the conditions are suitable TTE should be done primarily because no difference was shown in success and complication rates in ASD closure between TTE and TEE guided groups.