

**Clinical Outcome Of Thoracoscopic Vsd Closure Versus Conventional Median Sternotomy**

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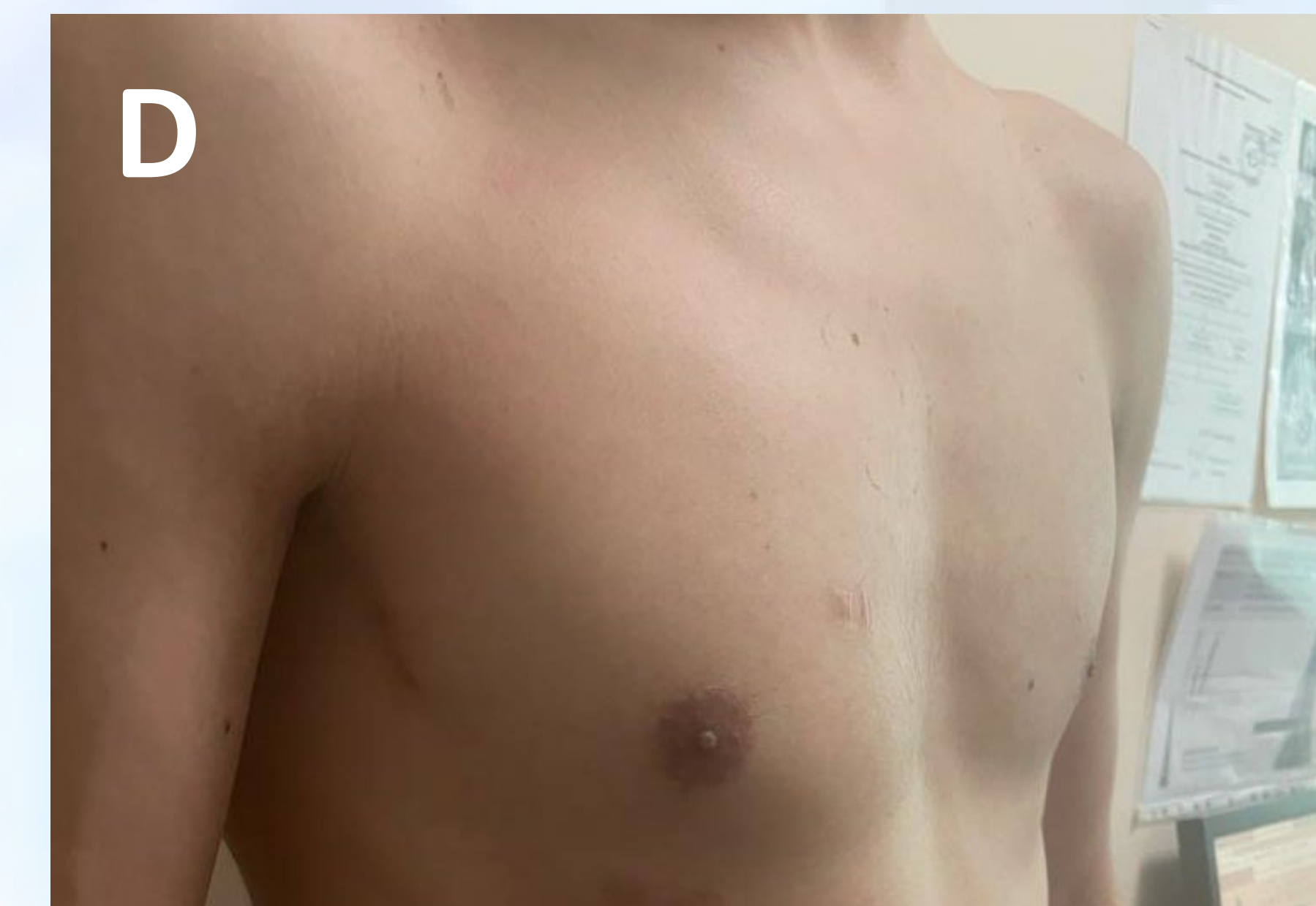
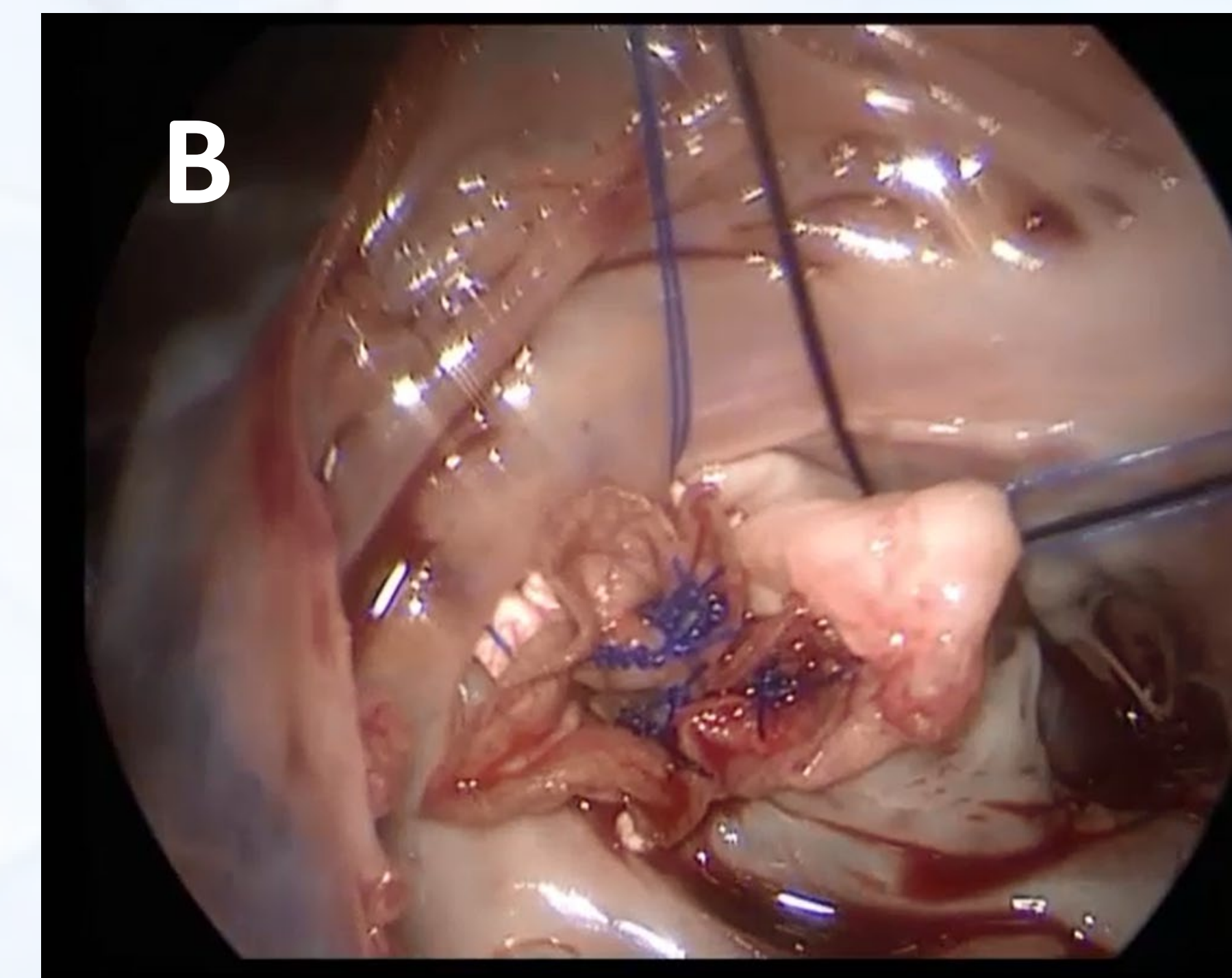
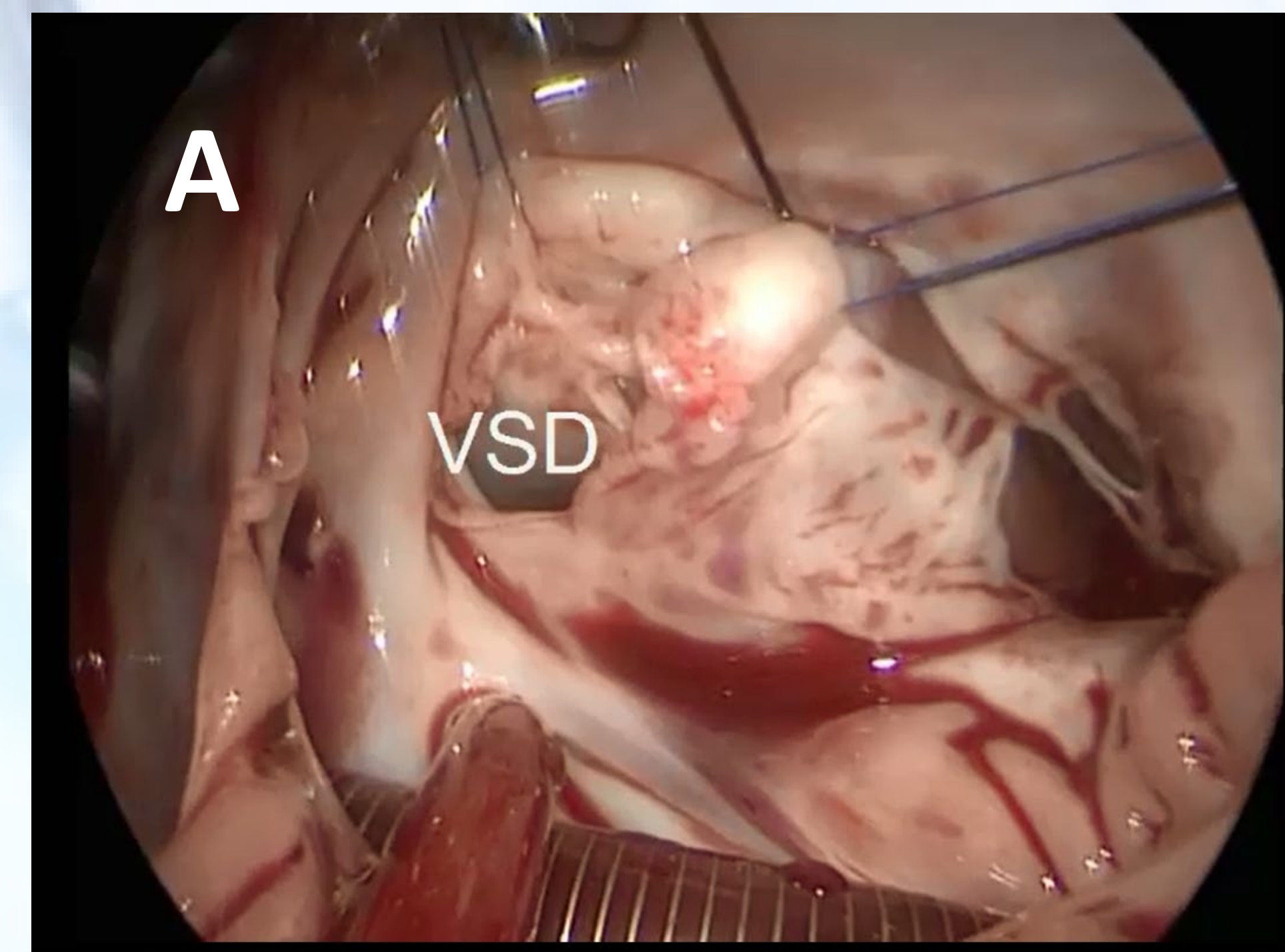
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**BACKGROUND**

Comparison of the results of closure of the ventricular septal defect using thoracoscopic and median approaches.

**METHODS**

Between 2012 and 2021, 59 patients with ventricular septal defects were divided into two groups: thoracoscopic group (n-27) and conventional median sternotomy group (n-32). In the thoracoscopic group, all patients underwent total endoscopic procedures with peripheral cardiopulmonary bypass, whereas in the conventional group, all patients were operated using conventional median sternotomy approach. The average age of patients in thoracoscopic group was 12 (8-20) years, in conventional group was 13 (9-22) years.



**A-The representation of VSD**

**B-Closure of VSD with pericardial patch**

**C-Accesses for thoracoscopy and for cannulation of the femoral vessels**

**D-skin incision 1 year after surgery**

**RESULTS**

| Variables                             | Thoracoscopic group n-27 | Conventional median sternotomy group (n-32) | P-value |
|---------------------------------------|--------------------------|---------------------------------------------|---------|
| Duration of intensive care (hrs)      | 16 (14-18)               | 21 (19-22)                                  | <0,001  |
| Mechanical ventilation time (minutes) | 105 (70-115)             | 180 (135-218)                               | <0,001  |
| Operational bleeding (ml)             | 170 (120-190)            | 190 (140-250)                               | <0,027  |
| Total duration of operation (minutes) | 256±26 (246-2670)        | 211±42 (195-226)                            | <0,001  |
| Cardiopulmonary bypass time (minutes) | (94 (73-110)             | 57 (44-68)                                  | <0,001  |
| Postoperative scar (mm)               | (50 (42-55)              | 150 (128-180)                               | <0.001  |
| Post-operative hospital stay (days)   | 7 (6-8)                  | 8 (7-9)                                     | <0,001  |

**CONCLUSIONS**

The data obtained indicate the successful use of two approaches, however, in the group where thoracoscopic correction was performed, duration of stay in the ICU and in the hospital, volume of blood loss, the need for blood transfusion, and the length of the skin incision were significantly lower than in the group of the median sternotomy access.