

AEPC-YIA Session

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AEPC-YIA Session (I-AEPCYIA)

Chair: Hiroyuki Yamagishi (Tokyo Metropolitan Children's Medical Center)

Chair: Nico Blom (Center for Congenital Heart Disease Amsterdam-Leiden, Leiden University Medical Center, Leiden / Amsterdam University Medical Center, Amsterdam, The Netherlands)

[I-AEPCYIA-4] Risk Factors for Reintervention in Children with Subaortic Stenosis: A 20-Year Single-Center Experience

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キーワード: subaortic stenosis、recurrence risk、surgical resection

INTRODUCTION: Subaortic stenosis (SAS) is a lesion of the left ventricular outflow tract found in 2-6% of children with congenital heart defects. Despite good short-term surgical outcomes, recurrences are not rare, with reintervention required in up to 30%. The mechanisms behind lesion recurrence remain unclear. Tunnel-like lesions, higher preoperative peak gradients, and younger age at surgery have been associated with increased recurrence risk. Our study aimed at identifying risk factors for reintervention in children with recurrent SAS following a first successful resection.

METHODS: This retrospective study included 76 pediatric patients treated for SAS at University Hospital Saint-Luc (Brussels) from 2000 to 2020. Data from ultrasounds, clinical records and surgeries were analysed, considering patients' age, weight, height at surgery, type of SAS, associated cardiac malformations and concomitant myomectomy. Statistical analysis was conducted using IBM SPSS software to identify predictors of recurrence.

RESULTS: The median age at surgery was 3 years (IQR 25-75: 1.6-5.6 years), with a male predominance (60.5%). Nearly 80% of patients had associated cardiac malformations. After several years of follow-up, the recurrence rate was 13.1%. Younger age, smaller size, and a lesion-to-valve distance of 8 mm or more, particularly in fibromuscular or tunnel-like lesions, were correlated to higher reintervention risk. The 10-year reintervention-free survival rate was 89.5%.

CONCLUSIONS: Managing SAS in children remains challenging due to the significant risk of recurrence. The study identified key predictors of reintervention, stressing the importance of individualised treatment plans and close monitoring, especially for younger patients with specific anatomical abnormalities, to improve long-term outcomes.