

**Closure of Atrial Septal Defect in the adult.**

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**Introduction**

Treatment of atrial septal defect (ASD) in the adult is still controversial and with older age the likelihood of treatment is decreased. Closure affects subjective symptoms but not atrial fibrillation. The aim of this study was to investigate the effect of ASD closure in adults and especially in the elderly in our institution in a retrospective review.

**Methods**

Patients (N=203) were operated for an isolated ASD at Aarhus University Hospital from 1999 to 2008. Ten were lost to follow up and thus 197 were included in the study. Hospital records were reviewed and symptoms and echocardiographic findings preoperative and at 3 months follow up registered. Patients were divided into; Group I (N=118): less than 50 years old and group II (N=79): more than 50 years. Results within and between the 2 groups were compared

**Results**

One patient (0.5%) died during follow up. Complications occurred in 18% in group I and 22% in group II. There was a relative risk reduction of 66% and 53% respectively in RV dilatation after operation. Atrial fibrillation was noticed in 6% of the young and 47% of the elderly with a reduction after treatment to 26% in group II with a relative risk reduction of 45%. Subjective symptoms occurred in 75% in group I and 99% in group II with a postoperative reduction to 43% and 67%, respectively. In group I 70% felt improvement of symptoms while it was 86% in group II.

**Conclusions**

Symptoms and RV dilatation is more pronounced in the elderly (>50 years) and reversibility is higher in the young (< 50 years) patients. However, the elderly benefit substantially from ASD closure. Improvement of symptoms was reported by 86 %. In 50 % RV dilatation was reduced after 3 months and almost half of the patients with atrial fibrillation recovered from it. ASD closure after the fifth decade is therefore recommendable.