CONCLUSION

CEA is effective in preventing stroke both in the short and long term. The risk of recurrent stroke in this material was lower than previous randomised trials. One possible explanation for this is improved pharmacological secondary prevention, specifically the use of statins, which would merit further analysis. Octogenarians had a twofold increased risk of late stroke. Ischemic heart disease, diabetes and smoking were also associated with an increased risk, whereas contralateral stenosis did not affect the risk of stroke > 30 days postoperatively. Patients treated with CAS had a twofold risk of recurrent stoke.

Introduction

Carotid endarterectomy (CEA) has become the mainstay treatment of symptomatic carotid artery stenosis. The goal of CEA is to reduce the risk of stroke in the long-term. However, there are scarce data on the long-term outcome of CEA outside the randomized controlled trials.

Our aim was to evaluate the long-term outcome for patients that have undergone CEA for symptomatic carotid stenosis in a nationwide cohort study.

Methods

All patients registered in Swedvasc treated with CEA or CAS June 2008–September 2017, were included. The cohort was cross-matched with the national stroke registry. All patients were followed-up until death or final study date. Primary endpoint was recurrent stroke >30-days postoperatively.

Results

During the study period, 7,354 patients had surgical intervention for symptomatic carotid stenosis; CEA n=7,116, CAS n=238. All patients were followed until endpoint or death. The median time to primary endpoint was 4.1 years, equivalent of 32.253 person-years.

The mean age was 72.2 years and 67.3% were male. In this cohort, 76.3% had hypertension, 29% suffered from ischemic heart disease, 19.9% percent had diabetes mellitus and 21 percent were smokers.

Perioperative (<30 days) stroke and death rate was 3.5 percent.

At follow up, 615 patients (8.3%) had suffered recurrent stroke and 1,559 patients were deceased (21.2%). The estimated risk of late recurrent stroke was 1.9 per 100-person-years. The risk of stoke correlated with higher age. In the age group >80 years hazard ratio was 2.37 compared to 1.64 in the 75-79 group (Figure 2).

CAS was associated with a twofold increased risk of late stroke compared to CEA (figure 3); adjusted HR 2.1, 95% CI 1.6-2.9.