Abstract: P934
Temporal trends in risk of atrial fibrillation and stroke in patients with peripheral artery disease between 1997 to 2015

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Topic(s):
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Objectives: The risk of atrial fibrillation (AF) and stroke in patients with peripheral artery disease (PAD) is an important and inadequately addressed issue. Our aim was to examine temporal trends in the incidence of AF and stroke in patients with PAD.

Methods: Danish nationwide registers were used to identify all patients aged ≥18 years, with first-time diagnosis of PAD between 1997 and 2015. Age-standardized incidence rates per 1,000 person-years were calculated to estimate trends of AF and stroke. Risk of AF and stroke was furthermore estimated by 1-year cumulative-incidence divided into four year-groups.

Results: A total of 121,211 patients with first-time diagnosis of PAD were included. The 1-year cumulative-incidence of AF in patients with PAD were 1.97% for year 1997–2000, 2.63% for year 2001–2005, 2.66% for year 2006–2010, and 2.78% for year 2011–2015, respectively. The 1-year cumulative-incidence of stroke in patients with PAD were 2.71%, 2.71%, 1.95%, and 1.81%, for the 1997–2000, 2001–2005, 2006–2010, and 2011–2015 year-groups respectively. Likewise, the age-standardized incidence rates showed increasing trends of AF during the study period whereas trends of stroke demonstrated a decline (Figure 1). All age-standardized trends were statistically significant (p<0.05).

During the course of study i.e., between 1997 and 2015, the initiation of cholesterol-lowering agents, clopidogrel, and oral anticoagulants increased markedly from 7.0% to 51.3%, 0.1% to 5.9%, and 0.0% to 0.7%, respectively.

Conclusion: The incidence of AF in patients with PAD has significantly increased over time whereas a marked decline has occurred in the incidence of stroke. This suggests that the secondary prevention strategies aimed at reducing risk of stroke are broadly effective. Moreover, due to global aging, earlier and more frequent diagnosis, and improved treatment of cardiovascular risk factors may explain the increasing incidence of AF.
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Figure 1