

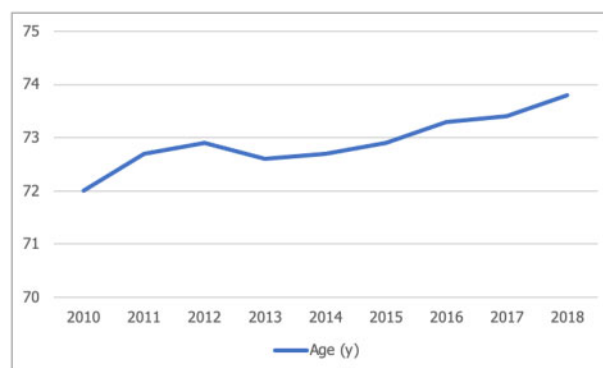
MO459

RENAL FUNCTION AMONG PATIENTS WITH NEW DIAGNOSIS OF ATRIAL FIBRILLATION - RESULTS FROM THE NATIONWIDE FINACAF- STUDY

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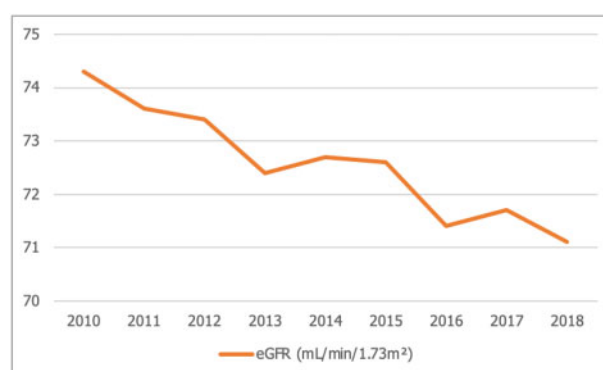
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BACKGROUND AND AIMS: Chronic kidney disease (CKD) is a global public health problem with increasing number of patients due to obesity, hypertension, diabetes, and aging. CKD is an independent risk factor for atrial fibrillation (AF) and the incidence of AF in patients with CKD is two- to threefold higher compared to the general population. Relationship between CKD and AF is bidirectional, and the incidence of impaired renal function is higher in patients with AF. Both AF and CKD are associated with increased risk of stroke and systemic thromboembolism, and also bleeding. The Finnish AntiCoagulation in Atrial Fibrillation (FinACAF) is a nationwide study among AF patients conducted as a retrospective register-based linkage study combining data from several Finnish health care registers. We aimed to characterize demographics and comorbidities of AF patients included in FinACAF according to stages of renal function.



MO459 Figure 1: Mean age by cohort entry year.

eGFR= estimated glomerular filtration rate



MO459 Figure 2: Mean eGFR by cohort entry year.

eGFR= estimated glomerular filtration rate

METHOD: FinACAF- study collects data from 411 000 patients covering all Finnish AF patients from 1 January 2004 to 31 December 2018. Using national unique personal identification number, individual patients' data from ten nationwide population registries and six regional laboratory databases (~282 000, 77% of the patients) are linked together. Inclusion criteria of this substudy were all patients who had new ICD-10 AF diagnosis (code I48) between January 2010 and December 2018 and measured estimated glomerular filtration rate (eGFR) within the proximity of AF the diagnosis. **RESULTS:** Of the whole study cohort, 128 538 were included in this substudy. The

mean age at the time of AF diagnosis was 73 years (range 18 to 107 years) and 48.9 % of the patients were female. The age of AF patients increased (Figure 1) and eGFR decreased (Figure 2) in various stages of glomerular filtration at the cohort entry during 2010–2018 are shown in Figures 1 and 2. Prevalence of various comorbidities and the mean age at the baseline are shown in the Table. Most of the comorbidities were more common in patients with lower eGFR levels.

MO459 Table. Prevalence of various comorbidities and mean age at entry to the cohort.

Variable	eGFR ≥90	eGFR 60–89	eGFR 30–59	eGFR 15–29	eGFR <15	Total
Age, years (mean)	60.1	74.2	80.6	81.9	74.4	73.0
Hypertension (%)	70.4	80.9	87.6	91.5	93.0	80.7
Diabetes (%)	15.8	16.6	23.6	34.5	44.1	18.9
Hyperlipidemia (%)	13.4	19.0	21.7	20.8	21.4	18.5
Heart failure (%)	10.1	15.8	30.2	49.0	41.6	19.2
Coronary artery disease (%)	16.3	25.7	36.5	42.7	39.8	26.8
TIA (%)	4.6	7.4	9.1	8.3	6.4	7.2
Stroke (%)	8.0	11.5	14.6	16.3	14.7	11.7
Other vascular disease (%)	3.3	5.0	9.1	14.9	20.7	6.0
Pulmonary embolism (%)	1.5	1.9	3.0	4.1	2.9	2.1
Other venous thrombosis (%)	5.3	6.6	8.5	9.2	10.3	6.9
Cancer (%)	11.8	18.2	22.6	25.7	24.6	18.1
Dementia (%)	1.0	3.6	6.5	8.2	4.0	3.9
Psychiatric disease (%)	21.2	15.4	17.9	21.8	19.9	17.5

eGFR= estimated glomerular filtration rate (mL/min/1.73m²), TIA= transient ischemic attack

CONCLUSION: During 2010–2018 the mean age of new AF patients increased in Finland, and simultaneously the renal function decreased. Also, patients with impaired glomerular filtration rate had more often comorbidities increasing the risk of thromboembolism and bleeding. The findings emphasize appropriate control of these risks in AF patients, especially with reduced renal function.