a great importance to achieve benefits of treatment and to avoid adverse events. With anticoagulant therapy the risk of stroke is lower in AF. Oral vitamin K dependent anticoagulants (VKA) can effective decrease the risk of stroke.

Our aim was to investigate the one year persistence of the newly started VKA therapy in patients suffered from AF.

Patients and methods: Data was utilized from institutional database of the National Health Insurance Found (NHIF). The study included data for patients who newly started (not administered KVA therapy before one year) VKA therapy (acenocumarol or warfarin) between June 1 2011 and May 31 2012. Main outcomes measures were the persistence of VKA therapy in months, the percentage of patients persisting in therapy for 1-12 months and Kaplan–Meier plots. We analyzed the data by gender and age group too.

Results: 26.403 patients (12.634 men and 13.769 women) started VKAs. The most pronounced decrease of adherence occurred at the end of first month (-35%), it means the persistence was only 65% for one month. In the following months the persistence curve showed a moderate decrese because 35% of patients left VKA therapy between 1-12 months. The percentage of patients who persisted with VKA therapy after 12 month was only 30 percent overall. In age group 60-69 years was the best persistence by 33% and the worst in age group under 39 year by 11%.



One year persistence of VKA therapy.

Conclusion: We have proved that patients with newly started VKA therapy suffered from AF, one year persistence of VKA therapy was very low, only 30%. The persistence has differed by age groups. It is well known that oral VKA therapy prevents the risk of stroke, but there are several factor affecting the persistence of VKA therapy.

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Left atrial appendage occlusion for stroke prevention in atrial fibrillation: multicenter experience with the Amplatzer Cardiac Plug

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Aims: To investigate the safety, feasibility, and efficacy of left atrial appendage occlusion (LAAO) with the Amplatzer Cardiac Plug (ACP) in patients with atrial fibrillation (AF).

Methods and results: Data from consecutive patients treated in 22 centers were collected. A total of 1047 patients (age 75 \pm 8 years, 62% males) were included. Procedural success was 97.3%. In 216 patients (20.6%), LAAO was



Results: Stroke & bleeding reduction.

combined with another procedure. There were 45 (4.3%) peri-procedural major adverse events: death 8 (0.8%), stroke 9 (0.9%), myocardial infarction 1 (0.1%), cardiac tamponade 13 (1.2%), major bleeding 13 (1.2%), and device embolization needing surgery 1 (0.1%). Follow-up was complete in 98.2% of successfully implanted patients. Average follow-up was 13 months, accumulating 1345 patient-years. ASA monotherapy increased from 31% to 64% and warfarin monotherapy decreased from 16% to 1.6%. One-year all-cause mortality was 4.2%. A total of 63 deaths were reported at follow-up (17 due to cardiovascular causes). None was related to the device. There were 9 (0.9%) strokes, and 9 (0.9%) transient is chemic attacks at follow-up. The annual rate of systemic thromboembolism (periprocedural + follow-up) was 2.3%, which translates into a 59% risk reduction. There were 15 (1.5%) major bleedings at follow-up. The annual rate of major bleeding (peri-procedural + follow-up) was 2.1%, which translates into a 61% risk reduction.

Conclusions: In this multicenter all comers study, LAAO with the ACP had a high procedural success and a moderate amount of peri-procedural complications. LAAO with the ACP showed a favorable outcome regarding efficacy for the prevention of AF related thromboembolism. Modification in antithrombotic therapy after LAAO resulted in fewer than expected bleeding events.

Poster Session 5

THINGS YOU ALWAYS WANTED TO KNOW ABOUT SPORTS CARDIOLOGY

P4188 | BEDSIDE

A delayed increase in high sensitive Troponin I following high-intensity endurance cycling competition may have a potential role in the detection of unrecognized coronary artery disease

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Purpose: An increase in circulating cardiac Troponin levels may be observed following prolonged intense physical exercise. The precise cause and clinical significance of this troponin increase is unknown. The objective of this study was to describe the pattern of high-sensitive cardiac Troponin I (hs-cTnl) release following long-term cycling competition in presumably healthy amateur athletes.

Methods: Leisure sport cyclists without known coronary artery disease or cardiovascular medical treatment completing the 91 km mountain bike race were included in the study. Blood samples and rest ECG were aquired at 4 time-points: 24 hours prior to the race, and at 0, 3 and 24 hours following the race.

Results: A total of 97 cyclists, 74 (76%) males, mean age 43 (36-49) years, completing the race in 4:22 \pm 0:52 (h:min) with a mean heart rate of 156 \pm 16.7 bpm were included. Mean hs-cTnl value prior to the race was 4.0 \pm 3.7 ng/l (upper limit of normal: 30.0 ng/l).No patient had rest ECG or symptoms suggestive of coronary artery disease (CAD) during the race or for the first 24 hours following the race. Following the race. The mean hs-cTnl value immediately following the race was 61.4 \pm 54.8 ng/l, peaking at 3 hours to 90.8 \pm 113.9 ng/l, declining at 24 hours to 46.9 \pm 215.2 ng/l. All values were highly significantly different from baseline (p<0.0001). In 3 out of 4 individuals with the highest hs-cTnl levels, significant CAD was detected by CT coronary angiography. Revascularization was performed in two of these. No CAD was detected in individuals with a max hs-cTnl level <370 ng/l.

Conclusions: Hs-cTnl levels increased in all participants following the competition. Highly elevated hs-cTnl following the competition identified several cyclists with previously unrecognized significant CAD. These findings may suggest a potential role for hs-cTnl in the detection and monitoring of CAD among persons participating in prolonged high intensity endurance activity.

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Simultaneous pressure and volume registration demonstrates RV contractile impairment during exercise in endurance athletes with RV arrhythmias

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Introduction: At rest, right ventricular (RV) function may appear reduced in healthy endurance athletes (EAs), whereas RV functional reserve is normal. We sought to evaluate whether EAs with ventricular arrhythmias (EA-VA) of RV origin and apparently normal RV function at rest have impaired RV functional reserve during exercise.