O83–O91

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O83

Frailty to predict unplanned hospitalizations, stroke, bleeding and death in atrial fibrillation

P. Meyr1,2, R. Gugganig1,2, S. Aeschbacher1,2, D.P. Leong1, S. Blum1,2, M. Coslovsky4, J.H. Beer5, G. Moschovitis6, D. Müller7, N. Rodondi7,8, S. Stempfel1,2, C. Müller1,2, M. Kühne1,2, D. Conen2,3, S. Osswald1,2, for the Swiss-AF Investigators

1Department of Medicine, University Hospital Basel, Division of Cardiology, 2Cardiovascular Research Institute Basel, Basel, Switzerland, 3Population Health Research Institute, Hamilton, ON, Canada, 4Department of Clinical Research, Clinical Trial Unit Basel, Basel, 5Department of Medicine, Cantonal Hospital of Baden and Molecular Cardiology, University Hospital of Zürich, Baden, 6Department of Cardiology, Ospedale Regionale di Lugano, Lugano, 7Institute of Primary Health Care (BIHAM), University of Bern, 8Department of General Medicine, Inselspital, Bern University Hospital, University of Bern, Berne, Switzerland

Aim: We investigated the prevalence of frailty, and the relationships between frailty and the risk of adverse clinical outcomes in patients with atrial fibrillation (AF).

Methods: Patients with known AF were enrolled in a nationwide observational cohort study in Switzerland. Information on medical history, medication, lifestyle factors and clinical measurements were obtained. The primary outcome was unplanned hospitalizations, secondary outcomes were all-cause mortality, bleeding and stroke. The frailty index (FI) was measured using a cumulative deficit approach according to previously published criteria. Participants were divided into three groups (non-frail, pre-frail and frail) according to their FI at study entry. The association between frailty and clinical outcomes was assessed using multivariable adjusted Cox proportional hazard models.

Results: We included 2369 patients with a mean age of 73±8 years (27.3% female). The prevalence of frailty and pre-frailty was 10.6% and 60.7%, respectively. The cumulative incidence of clinical outcomes and the associations of frailty with clinical outcomes are illustrated in Figure O83-1 and Figure O83-2. Frailty was associated with unplanned hospitalization (adjusted hazard ratio [HR] 3.59; 95% confidence interval [95% CI], 2.78-4.63; p<0.001), all-cause mortality (adjusted HR 16.72; 95% CI 7.75-36.05; p<0.001), bleeding (adjusted HR 2.46; 95% CI

Figure: O83-1. Associations between frailty and clinical outcomes.

<table>
<thead>
<tr>
<th>Unplanned hospitalization</th>
<th>No. of events/patients</th>
<th>Adjusted HR (95% CI)</th>
<th>P Value</th>
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<tbody>
<tr>
<td>Level of frailty</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-frail</td>
<td>351/116</td>
<td>Ref</td>
<td></td>
</tr>
<tr>
<td>Pre-frail</td>
<td>480/126</td>
<td>1.82 (1.49-2.22)</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Frail</td>
<td>308/122</td>
<td>3.59 (2.78-4.63)</td>
<td>&lt;0.001</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Stroke</th>
<th>No. of events/patients</th>
<th>Adjusted HR (95% CI)</th>
<th>P Value</th>
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</thead>
<tbody>
<tr>
<td>Level of frailty</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-frail</td>
<td>30/67</td>
<td>Ref</td>
<td></td>
</tr>
<tr>
<td>Pre-frail</td>
<td>38/123</td>
<td>1.59 (1.07-2.38)</td>
<td>0.05</td>
</tr>
<tr>
<td>Frail</td>
<td>26/122</td>
<td>3.29 (2.19-4.83)</td>
<td>&lt;0.001</td>
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</table>

<table>
<thead>
<tr>
<th>Bleeding</th>
<th>No. of events/patients</th>
<th>Adjusted HR (95% CI)</th>
<th>P Value</th>
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<td>Level of frailty</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Non-frail</td>
<td>15/60</td>
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</tr>
<tr>
<td>Pre-frail</td>
<td>17/61</td>
<td>1.33 (1.15-2.53)</td>
<td>&lt;0.01</td>
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<tr>
<td>Frail</td>
<td>12/62</td>
<td>2.46 (1.41-4.37)</td>
<td>&lt;0.001</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>All-cause mortality</th>
<th>No. of events/patients</th>
<th>Adjusted HR (95% CI)</th>
<th>P Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level of frailty</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-frail</td>
<td>29/67</td>
<td>Ref</td>
<td></td>
</tr>
<tr>
<td>Pre-frail</td>
<td>37/125</td>
<td>3.87 (2.43-6.08)</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Frail</td>
<td>29/125</td>
<td>8.72 (4.71-16.40)</td>
<td>&lt;0.001</td>
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</tbody>
</table>

Footnote: *Unplanned hospitalization (events/patients and adjusted HR with 95% confidence interval [95% CI]) include all-cause mortality, all-cause mortality, and stroke (damage index ≥ 1). Pre-frail index (events/patients and adjusted HR with 95% CI) include all-cause mortality, all-cause mortality, and stroke (damage index ≥ 1). Pre-frail index (events/patients and adjusted HR with 95% CI) include all-cause mortality, all-cause mortality, and stroke (damage index ≥ 1).
1.61-3.77; p<0.001), and stroke (adjusted HR 3.29; 95% CI 1.29-8.39; p = 0.01). Similarly, pre-frailty was significantly associated with unplanned hospitalization (adjusted HR 1.82; 95% CI 1.49-2.22; p<0.001), all-cause mortality (adjusted HR 5.07; 95% CI 2.43-10.59; p<0.001) and bleeding (adjusted HR 1.53; 95% CI 1.11-2.13; p = 0.01), but not with stroke.

**Conclusion:** In our cohort, more than two thirds of AF patients were either pre-frail or frail. These patients have a high risk of unplanned hospitalizations and other adverse outcomes, indicating that frailty is a powerful tool to predict adverse clinical outcomes in AF patients.

**O84**

**Lipoprotein (a) reference levels for Switzerland from the population-based SKIPOGH study**

E. Tessitore¹, I. Kern², S. Estoppey³, B. Ponte⁴, M. Pruijm¹, P. Monney³, N.A. Dhayat², B. Vogt³, N. Vuilleumier², M. Bochud³, F. Mach¹, G. Ehret¹

¹Département de Medicine, Service de Cardiologie, ²Département Diagnostique, Service de Medicine de Laboratoire, Hopital Universitaire de Geneve, Geneva, ³University Center for Primary Care and Public Health, University of Lausanne, Lausanne, ⁴Département de Medicine, Service de Nephrologie, Hopital Universitaire de Geneve, Geneva, ⁵Nephrology Department, Inselspital, Bern University Hospital, Berne, Switzerland

**Introduction:** Lipoprotein (a) [Lp(a)] is an LDL-like molecule that appears to be causally related to cardiovascular events. Renewed interest in Lp(a) originates from the possibility to lower Lp(a) levels by inhibiting paraprotein convertase subtilisin/kexin type 9 (PCSK9). Ethnic and regional differences in Lp(a) levels are largely due to the underlying genetic architecture of Lp(a) level regulation. In Switzerland, Lp(a) values were reported in the CoLaus study, but are limited to participants from a single city. In the present study, we describe normal values for Lp(a) in the population-based SKIPOGH (Swiss Kidney Project on Genes in Hypertension) study with participants from different Swiss sites.

**Methods:** SKIPOGH is a population-based cross-sectional family-study that recruited participants of European ancestry, aged 18-90 years, in the regions of Geneva, Bern, and Lausanne. Plasma samples were collected, stored at -80°C until analysis, and assayed by immuno-nephelometry on a BN ProSpec system (Siemens). Descriptive statistics were performed using the R statistical package. Mean and median values are indicated with the ±standard deviation.

**Results:** Lp(a) levels were available from 1,027 participants, 53% were female. A total of 389 participants were from Geneva, 391 from Lausanne, and 247 from Bern. Mean age was 51 (±17) years. The median LDL level was 3.07 (±0.95) mmol/l. The median value of Lp(a) was 62 (±204) mg/l. The 75th, 90th, 95th percentile of Lp(a) was 164 mg/l, 446 mg/l, 614 mg/l respectively, and the 97th percentile was 716 mg/l.

When excluding participants with a previous cardiovascular event (myocardial infarction, stroke, or transient ischemic attack, n = 37), the 75th, 90th, 95th percentile of Lp(a) was 163 mg/l, 446 mg/l, 614 mg/l respectively, and the 97th percentile was 716 mg/l.

The distribution of Lp(a) levels showed an important right-skew (Figure O84-1), similar to observations in other populations. Comparing the distributions of Lp(a) levels between participants from the three Swiss cities revealed very similar results (Figure O84-2).

**Conclusions:** Our study describes a population-based reference distribution of Lp(a) values in Switzerland, establishing the 95th percentile at 614 mg/l in adults without known cardiovascular disease. The three regions sampled (Geneva, Bern and Lausanne), did not yield different distributions, suggesting genetic homogeneity of the Swiss adult population for Lp(a).
O85  
Prevalence and risk of inappropriate dosing of direct anticoagulants in atrial fibrillation - a sub-analysis of the Swiss-AF and BEAT-AF registries  
1Cantonal Hospital Baden, Baden. 2Cardiovascular Research Institute Basel, Basel. 3University Hospital Bern (Inselspital), Bern. 4University Hospital Basel, Basel. 5Regional Hospital of Lugano, Lugano. 6Molecular Cardiology, University of Zurich, Zurich, Switzerland

Introduction: Direct oral anticoagulants (DOACs) have similar efficacy in terms of stroke and mortality reduction as compared to Vitamin K-Antagonists (VKAs) and improved safety with regards to intracranial haemorrhage in non-valvular atrial fibrillation (AF). Dose of DOACs needs to be adjusted to age, weight, renal function and concomitant medication. Off-label dosages have been reported in 11-45% of patients. We aimed to assess the prevalence of inappropriate DOAC-dosing according to the official prescribing information and its correlation with adverse clinical outcomes in 2 prospective Swiss AF cohorts (Swiss-AF; BEAT-AF).

Methods: 3267 patients on oral anticoagulants were stratified at baseline as receiving DOACs (adequately dosed, under- or overdosed) or VKAs. DOAC dosing was assessed based on age (≥80years), weight (≥60kg) and renal function (serum creatinine ≥133 µmol/l [apixaban]; creatinine clearance ≤50 ml/min [all other DOACs]). Outcomes were collected during a median follow-up of 2.96 years. Major adverse clinical events (MACE) consisted of myocardial infarction, cardiac death, ischemic stroke and systemic embolism. Safety was assessed by occurrence of any bleeding event.

Results: 58% of patients were on VKAs and 42% on DOACs. In the DOAC group, 84% received a dose consistent with drug labelling, 10% an inappropriately high and 6% an inappropriately low dose. Overdosed patients were older than those adequately treated and more likely female, had a lower BMI and a higher CHA2DS2-VASc score (p <0.001). Underdosed patients were more likely to have concomitant antiplatelets (p <0.001). Both off-label groups were more likely to have a history of coronary artery disease, heart failure and chronic kidney disease (p <0.001). Incidence rate for the first occurrence of MACE or bleeding is provided in Figure O85-1. Overdosed patients had an almost two-fold higher risk of bleeding (9.0 vs. 5.0 events per 100 patient-years compared to correctly dosed DOACs and VKAs) and a higher rate of MACE (5.1 vs. 2.3 events per 100 patient-years compared to correctly dosed DOACs and 5.1 vs. 3.4 compared to VKAs). Underdosing did not seem to be associated with a relevant increase in ischemic or bleeding events as compared to correctly dosed DOACs and VKAs (Figure O85-1).

Conclusion: inadequate dosing was found in almost 1 in 6 patients and correlated with a higher burden of comorbidities at baseline. Overdosing was associated with adverse outcome for ischemic and bleeding events.

O86  
The omega-3 fatty acid eicosapentaenoic acid (EPA) is inversely associated with ischemic brain Infarcts in elderly patients with atrial fibrillation  
1University Hospital Zurich, Zurich. 2Cantonal Hospital Baden, Baden. 3Clinical Trial Unit, University Hospital Basel, Basel. 4Center for Molecular Cardiology, University of Zurich, Schlieren. 5Cardiology Division, 4Cardiovascular Research Institute Basel, University Hospital Basel, Basel. 6Department of General Internal Medicine, University Hospital Bern (Inselspital). 7Institute of Primary Health Care (BIHAM), University Bern, Berne. 8Department of Cardiology and of Cardiac Surgery, University Hospital Basel, Basel. 9Division of Cardiology, Ospedale Regionale di Lugano, Lugano. 10Department of Neurology and Stroke Center, University Hospital Basel, Basel. 11Department of Preventive Cardiology, Ludwig-Maximillian-University Munich, Munich, Germany. 12Imperial College, 4Royal Brompton and Harefield Hospitals and Imperial College, London, United Kingdom. 13Population Health Research Institute, McMaster, Hamilton, ON, Canada

Background: The association of individual omega-3 fatty acids (n-3 FAs) with ischemic stroke remains unclear. Experimental data strongly suggest that n-3 FAs reduce ischemic stroke due to their anti-thrombotic and anti-inflammatory properties. Yet, recent clinical trials yielded mixed results. While marine n-3 FA supplementation (1 g/day) did
not reduce stroke, icosapent ethyl, a purified eicosapentaenoic acid (EPA) ethyl ester (4g/day), significantly reduced stroke incidence in patients at high cardiovascular risk. In the current study, we examined the association of fish-derived EPA, docosapentaenoic acid (DPA), docosahexaenoic acid (DHA) and the plant-derived alpha-linolenic acid (ALA) with the prevalence of ischemic brain infarcts in elderly patients with atrial fibrillation.

Methods: In this cross-sectional analysis of the Swiss atrial fibrillation (swissAF) cohort study, we determined baseline whole blood n-3 FAs by gas chromatography according to the HS-Omega-3 Index methodology in 1665 patients aged ≥ 65 years with atrial fibrillation. Large non-cortical and cortical infarcts (LNCCI) were assessed by brain MRI. Total and individual n-3 FAs were correlated with the prevalence of LNCCI in a log model with continuous factors. Analyses were adjusted for sex, age, body mass index, smoking, alcohol intake, family history of cardiovascular disease and atrial fibrillation, physical activity, hypertension, diabetes, chronic kidney disease, prior stroke, prior transient ischemic attack, aspirin, anticoagulation and type of atrial fibrillation.

Results: A total of 373 patients with LNCCI (22.4%) were identified. After adjustment, lower risk of LNCCI was associated with higher EPA (odds ratio [OR] 0.50 per increase of one percentage point EPA, 95% confidence interval [CI] 0.28 - 0.88) and a higher risk was detected with DPA (OR 2.39, 95% CI 1.43 - 4.01). No statistically significant association was detected with DHA (OR 1.13, 95% CI 0.94 - 1.35), ALA (OR 0.83, 95% CI 0.23 - 2.95) or total n-3 FAs (OR 1.03, 95% CI 0.92 - 1.16).

Conclusions: Higher levels of EPA are associated with a lower prevalence of ischemic infarcts in aged patients with atrial fibrillation. Unexpectedly, DPA shows a direct correlation with ischemic infarcts. This study demonstrates that individual n-3 FAs may differentially affect stroke risk and that supplementation of EPA may be an interesting strategy to prevent ischemic stroke in atrial fibrillation patients.

O87

Left atrial dimension and risk of cardiovascular outcomes in patients with and without atrial fibrillation: a systematic review and meta-analysis

P. Meyre1,2, L. Fröhlich1,2, S. Aeschbacher1,2, S. Blum1,2, D. Djokic2, M. Kühne1,2, S. Oswald1,2, B. Kaufmann1,2, D. Conen1,2

1Department of Medicine, University Hospital Basel, Division of Cardiology, 2Cardiovascular Research Institute Basel, Basel, Switzerland, 3Population Health Research Institute, Hamilton, ON, Canada

Background: The prognostic value of left atrial (LA) dimensions measured by transthoracic echocardiogram among patients with versus without atrial fibrillation (AF) is uncertain. We aimed to investigate the association of LA echocardiographic parameters with the risk of cardiovascular events in AF patients compared to non-AF patients.

Methods: MEDLINE and EMBASE were searched from inception to July 2018. Records were retained if they studied the association between LA echocardiographic parameters and cardiovascular outcomes in AF patients, and in populations with no or less than 10% of AF patients. Left atrial dimensions of interest were the following: LA diameter (LAD), LA diameter indexed to body surface (LADI), LA volume (LAV) and LA volume indexed to body surface (LAVI). Data were independently abstracted by 2 reviewers and pooled using inverse variance random-effects meta-analysis. The primary outcome was incident stroke and thromboembolic events. Secondary outcomes were heart failure, all-cause mortality and major adverse cardiac events (MACE).

Results: Twenty-three studies of AF patients (14'939 patients) and 69 studies of non-AF patients (52'654 patients) were included. Summary of the meta-analyses for the associations of LA parameters with cardiovascular outcomes is presented in the Figure O87-1. Increasing LAD was significantly associated with the risk of stroke and thromboembolic events in non-AF patients (P = 0.03), but not among AF patients (P = 0.27), and the association did not differ between population (P for difference = 0.05) (Figure O87-1, A). Greater LADI was associated with risk of stroke and thromboembolic events in AF patients (P<0.001) and in non-AF patients (P = 0.04), but the association did not differ between populations (P for difference = 0.49). For MACE, increasing LADI was significantly associated with the outcome in AF patients (P<0.001) and in non-AF patients (P = 0.04), but the association did not differ between populations (P for difference = 0.49). Increasing LAVI was associated with high risk of MACE in AF patients (P = 0.03) and in non-AF populations (P<0.001). Again, the correlation was stronger among non-AF patients (P for difference<0.001). Other associations did not differ between populations, and meta-analysis of LAV was not conducted by the limited number of studies.

Conclusions: Left atrial echocardiographic parameters are powerful predictors of adverse cardiovascular events, mainly among individuals without AF.
Abstracts

O88
New indications for prophylactic aortic surgery: can acute type A aortic dissection be prevented?
S. Grego1, S. Demertzis2,3,4
1Cardiology - Unit of Rare Cardiovascular Diseases, 2Cardiac Surgery, Cardiocentro Ticino, Lugano, 3University Bern, Berne, 4Università della Svizzera Italiana, Lugano, Switzerland

Introduction: The absence of warning symptoms, the non-precise risk scores and the lack of knowledge to assess the individual risk of dissection contribute to the notorious non-predictability of acute type A aortic dissection (AADA). Over 75% of AADA occur at aortic diameters lower than the current threshold for prophylactic surgery. A newly introduced index (Aortic Diameter/Height) contributed to widen risk categories and to lower the threshold for surgery. The quest for a reliable predictor to prevent AADA takes on again.

Methods: Retrospective analysis of patients (pts) operated for AADA. Following indexes were calculated: Aortic Diameter/Body Surface Area (ASI), Aortic Diameter/Height (AHI). Pts were allocated to the 3 old ASI-based (low, moderate, high), as well as to the newly proposed AHI-based 4 risk categories (low, moderate, high, very high). Aortic diameters were measured on the angio-CT scans at the time of initial diagnosis, measurement included the false lumen or hematoma.

Results: Among 132 pts operated for AADA in our institution (January 2002-December 2017), 101 were considered for this study. Mean age was 63±12 years, men were 80/101 (79%). Mean diameter of ascending aorta was 51.2±7.4 mm. Out of the 101 pts 68/101 were overweight or obese: 45/68 (66%) in grade I (BMI >30 Kg/m²), 17/68 (25%) in grade II (BMI between 30 and 35 Kg/m²) and 6/68 (9%) in grade III (BMI ≥35 Kg/m²).

If diameter was indexed for BSA (ASI) the risk for aortic dissection would have been considered high in 1 (1%) patient, moderate in 35 (35%) and low in 65 pts (65%). In the latter low risk group, 60% of pts (39/65) were overweight/obese. Using AHI, (i.e. indexing aorta diameter for height), 18/65 pts (28%) in low risk shifted to the moderate risk. According to the new risk categories 2 pts would have been considered at very high risk for dissection, 19 pts (19%) at high risk, 71 (70%) moderate and only 9 (9%) at low risk.

Conclusions: The new index considers height instead of BSA, overcoming the known paradox due to overweight, extends the risk categories from three to four and lowers the threshold for surgical indication. Applying retrospectively these new rules to our patient group, 91% of patients with aortic dissection would have had an indication for prophylactic surgery instead of 35% using the old BSA-based indexing. The more aggressive strategy towards prophylactic surgery could have a significant impact on the incidence of AADA.

O89
High intraoperative noradrenaline dose during off-pump coronary artery bypass surgery: a possible cause of acute kidney injury
V. Nitinopoulos, D. Odavic, A. Haeu ssler, H. Loeblein, D. Brugnetti, C. Wichmann, O. Dzemali
Department of Cardiac Surgery, Allianz Herzchirurgie Zurich, Triemli Hospital, Zurich, Switzerland

Introduction: Acute kidney injury (AKI) is a postoperative complication associated with increased morbidity and mortality. Noradrenaline is routinely used in cardiac surgery to maintain sufficient arterial blood pressure intraoperatively but concerns exist about its vasoconstrictive effects on organ perfusion. Aim of this study is to assess the impact of high intraoperative noradrenaline dose during off-pump coronary artery bypass (OPCAB) surgery on kidney function.

Methods: We performed a retrospective analysis of the data of 1035 patients undergoing OPCAB in our institution in the period 03/2011-07/2017. All patients had normal preoperative serum creatinine levels and were classified in 3 groups based on the Risk, Injury, Failure, Loss of kidney function, and End-stage kidney disease (RIFLE) classification postoperatively: Group A (no AKI) with 973 patients, Group B (RIFLE-Risk class) with 45 patients and Group C (RIFLE-Injury class or worse) with 17 patients. Between group differences were assessed for peak intraoperative noradrenaline dose, baseline characteristics and postoperative outcomes.

Results: There was a statistically significantly higher peak intraoperative noradrenaline dose in Groups B and C (median peak dose, Group A: 17mcg/min, Group B: 18mcg/min, Group C: 40mcg/min, p = 0.001). Patients in Groups B and C had a significantly higher rate of pulmonary dysfunction (Group A: 4.7%, Group B and C: 13.1%, p = 0.01) and non-elective surgery (Group A: 20.9%, Group B and C: 35.5%, p = 0.007), as well as a higher additive EuroSCORE (median EuroSCORE, Group A: 4, Group B: 6.5, Group C: 5, p = 0.01). There were no other statistically significant between-group differences in baseline characteristics. Patients in Groups B and C exhibited a longer intensive care unit stay (median stay, Group A: 3 shifts, Group B: 3 shifts, Group C: 15 shifts, p<0.0005) and a higher in-hospital mortality (Group A: 0.7%, Group B and C: 11.3%, p<0.0005).

Conclusions: High intraoperative noradrenaline dose during OPCAB seems to contribute to the development of AKI. Patients with AKI exhibit a prolonged intensive care unit stay and a higher in-hospital mortality. Intraoperative noradrenaline dose should be kept to a minimum in order to avoid this complication.

O90
Cardiac rehabilitation with ventricular assist device
T. Anstad1,2, J. Taeymans3, L. Engblomg3, P. Mohacsi3, M. Wilhelm1, D. Steiner1, M. Hermann1,3
1Zürcher RehaZentren Klinik Wald, Wald, 2Bern University of Applied Sciences, 3University Hospital Bern (Inselspital), Bern, Switzerland

Introduction: The absence of warning symptoms, the non-precise risk scores and the lack of knowledge to assess the individual risk of dissection contribute to the notorious non-predictability of acute type A aortic dissection (AADA). Over 75% of AADA occur at aortic diameters lower than the current threshold for prophylactic surgery. A newly introduced index (Aortic Diameter/Height) contributed to widen risk categories and to lower the threshold for surgery. The quest for a reliable predictor to prevent AADA takes on again.

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Hospitalier Universitaire Vaudois, Lausanne, centro Ticino, Lugano, Gallen, St. Gallen, Zurich, 1 the AMIS Plus Investigators

P. Erne  
F. Witassek

patients presenting with acute myocardial infarction

Cardiovascular risk factor trends over two decades in patients presenting with acute myocardial infarction

F. Witassek1, D. Radovanovic1, H. Rickli2, G. Pedrazzini3, P. Erne1, O. Muller4, F.R. Eberli5, M. Roffi6, on behalf of the AMIS Plus Investigators

1AMIS Plus Data Center, EBPI, Universität Zürich, Zurich, 2Department of Cardiology, Kantonsspital St. Gallen, St. Gallen, 3Department of Cardiology, Cardiocentro Ticino, Lugano, 4Department of Cardiology, Centre Hospitalier Universitaire Vaudois, Lausanne, 5Department of Cardiology, Stadtspital Triemli, Zurich, 6Department of Cardiology, Hôpitaux Universitaires de Genève, Genève, Switzerland

Introduction: Ventricular assist device (VAD) implantation in patients with end-stage heart failure is a routine therapeutic option. In Switzerland, these patients have been regularly referred to in-patient cardiac rehabilitation (CR) since 2007. However, the effect of CR in patients with VAD has not yet been evaluated here. The aim of this study was to assess changes in functional capacity (FC) and quality of life (QoL) of patients with VAD during CR and to explore associations of CR entry measures with length of stay (LoS) in CR and referrals to acute care during CR.

Method: Patients with VAD implantation between January 2007 and March 2017 at the University Hospital Berne (Inselspital) or the University Hospital Zurich with subsequent CR at the Berner Reha Zentrum Heiligenschwendi or the Zürcher RehaZentrum Wald were included in this retrospective analysis. CR measures of FC (6-Minutes Walking Distance [6MWD], Functional Independence Measure [FIM] and Ergometry) as well as QoL (Mac New Heart Disease Questionnaire [MNH] and Hospital Anxiety and Depression Scale [HADS]) at entry and discharge were examined. Dependent samples t-test or Wilcoxon signed-rank test and Pearson's or Spearman's correlation coefficients were used for statistical analysis. Significance was set at a level of α = 0.05.

Results: Data from 110 patients (mean age 53 ± 12 years; males 82%; LVAD 74%, BVAD 25%, RVAD 1%) were analysed. Mean LoS in CR was 25 ± 10 days and 29% of patients had to be referred to acute care. Patients improved during CR significantly in 6MWD (mean 114 ± 85 meters, p <0.001), Ergometry (mean 20 ± 17 Watt, p = 0.002), FIM (median 6 points, p <0.001) and MNH (median 0.69 points, p <0.001), but not in HADS (median -1 point, p = 0.637). Small significant negative correlations of FIM at entry with LoS in CR (r = -0.27, p = 0.015), as well as FIM (r = -0.27, p = 0.014) and MNH (r = -0.26, p = 0.037) at entry with referral to acute care were found.

Conclusion: Patients with VAD improved significantly in FC during CR. Since functional VAD-parameters usually remained unchanged from beginning to end of CR, we assume that improvement of FC might be mainly explained by the effect of CR. However, the study is limited by the retrospective design without a control group. Nevertheless, the detected improvement justifies referral of patients with VAD to CR. The remaining high values of HADS during CR in patients with VAD should receive more attention in clinical practice.

O91

Cardiovascular risk factor trends over two decades in patients presenting with acute myocardial infarction

Introduction: Hypertension, diabetes, dyslipidemia and smoking are established cardiovascular risk factors (CVRF). Little is known about the changes of risk factor profiles over time in patients presenting with acute myocardial infarction (AMI).

Purpose: To analyze the temporal trends of CVRF in patients presenting with AMI over the last 22 years in Switzerland.

Methods: We included data of all AMI patients enrolled between 1997 and 2018 in the Swiss nationwide AMIS Plus registry. The rates of hypertension, diabetes, dyslipidemia and smoking at presentation were descriptively analyzed dividing the data into 2-year periods. Trend analyses were performed using the CHI-square-test and ANOVA. A p-value of <0.005 was considered as statistically significant.

Results: A total of 57,995 patients were included in the analysis (73.6% male). The mean age was 66.0 years (males: 64.0 years, females 71.6 years) and did not differ over the study period. The mean CVRF rates over the study period were as follows: diabetes 20.5% (males: 19.4%, females: 23.6%), hypertension 60.2% (males: 57.0%, females: 69.0%), dyslipidemia 59.4% (males: 60.5%, females: 56.4%), and smoking 39.3% (males: 43.0%, females: 28.7%). While there was no significant change over time in the rates of diabetes for both genders, there were significant increases in the rates of hypertension and dyslipidemia for both males and females (p<0.001 for all comparisons). In terms of smoking, there was no significant trend for males while there was a significant increase in the rate of smoking for females (p<0.001). As a result, the gap in smoking rates between men and women decreased from 19.9% (45.3% vs. 25.4%) in 1997/98 to 7.9% (41.2% vs. 33.3%) in 2017/18.

Conclusions: Among patients presenting with AMI in Switzerland over two decades, the prevalence of hypertension and dyslipidemia increased in both men and women, while diabetes at presentation did not change over the years. We documented a failure of smoking control, with a lack of a reduction in the smoking prevalence among males and a striking increase among women.