



**FIGURE 1** MiRNAs expressions in regard to the type of antiplatelet treatment based on randomization [ASA 75 mg vs ASA 150 mg vs Clopidogrel]; a) miR-126; b) Let-7e; c) miR-223; d) miR-125a-3p

Variable	HR	95%CI		p-value
		Lower	Upper	
High miR-223	0.326	0.088	1.207	0.093
High miR-126	3.754	0.943	14.941	0.061
High Let-7e	7.829	1.200	51.095	<b>0.032</b>
High miR-125a-3p	0.657	0.224	1.928	0.445
Hypertension	2.828	0.558	14.344	0.210
Dyslipidemia	1.022	0.344	3.034	0.968
Age	1.099	1.031	1.171	<b>0.004</b>
Gender (male)	5.968	1.977	18.016	<b>0.002</b>
History of MI	1.753	0.648	4.737	0.269
Current smoking	3.034	0.589	15.621	0.184
Clopidogrel	2.471	0.894	6.828	0.081

HR, hazard ratio; MI, myocardial infarction, 95%CI, 95% confidence interval;

**FIGURE 2** Multivariate Cox regression model including high levels of miRNAs and clinical data

**Conclusions:** Let-7e expression is a strong and independent predictor of long-term all-cause mortality among patients with T2DM. MiR-223, miR-126 and Let-7e present significant interactions with antiplatelet treatment and clinical outcomes.

**PB0012 | Prognostic Significance of von Willebrand Factor in Flow-mediated Dilatation Test at Patients with Arterial Hypertension and Diabetes Type 2**

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**Background:** A poor prognosis of concomitant courses of arterial hypertension and diabetes mellitus type 2 on the population morbidity

especially deals with the thrombotic complications which are situated in locally injured vessels.

**Aims:** To set von Willebrand factor (vWF) level at the patients with arterial hypertension (AH) and type 2 diabetes mellitus (DM) and analyze its prognostic relationship due to vasodilation and assessment of endothelial function.

**Methods:** The activity of vWF was estimated in plasma of 146 patients with AH and DM and in 50 healthy persons using specific standardized VWF-reagent. The research of endothelial dysfunction was conducted in flow-mediated dilatation. Prognostic level of VWF was analyzed in the true-positive rate test and, then, with plotting a function of receiver operating characteristic.

**Results:** Initially, it was set, that basal level of vWF at patients with AH and type 2 DM was reliably higher ( $113.3 \pm 13.9\%$ ) than in the control group ( $85.2 \pm 8.9\%$ ;  $P < 0.01$ ). It was determined the negative reliable association in vWF activity and index of absolute diameter increasing ( $r = -0.49$ ,  $P = 0.02$ ). Then we have measured sensitivity, specificity and, set the predictive value of vWF level in relation to disorders of endothelial function. The prognostic value of the model was sufficiently high, area under the curve (AUC) obtains  $64.6\% \pm 6.74\%$  ( $P = 0.015$ ), that is a difference to 50.0% of AUC level. It was set the prognostic points for vWF activity between 81.5 % and 131.0 %.

**Conclusions:** The results undertaken in the study testify that elevation of vWF activity is associated with the decline of absolute increase of brachial diameters in flow-mediated dilatation test with prognostic level of vWF between 81.5% and 131.0%.

**PB0013 | The Coagulation and Fibrinolysis Changes Undergoing the Ramipril and Losartan Treatment of Concomitant Arterial Hypertension and Diabetes Mellitus Type 2**

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**Background:** ESC 2018 Guidelines of the management of arterial hypertension yet have set ACE-inhibitors and angiotensin-receptor blockers (BRA) as drugs of choice in treatment of associated pathology. We have interested in some specific pleiotropic features in the activity of them such as the influence on the state coagulation and fibrinolysis.

**Aims:** To learn potential activity of ramopril versus losartan on some factors of coagulation and plasma fibrinolysis during their use in patients with arterial hypertension and diabetes mellitus of type 2.

**Methods:** Monotherapy of ramipril (from 5 to 10 mg)( $N = 48$ ) or losartan (from 50 to 100 mg) ( $N = 41$ ) per day were prescribed for 89 patients with arterial hypertension and diabetes mellitus type 2 on the basic use of metformin and statins for 36 weeks. The activities of protein C, antithrombin III (AT III), and factor XIII, plasma fibrinolytic activity (PFA) were measured. The estimation of efficacy was conducted by calculation of “before-after” changes, the therapeutical benefit (changes of attributable risk – CAR and odds ratio (OR).

**Results:** It has been established the same direction of anticoagulative activity changes under the influence of both drugs. We set the reliable increase of protein C activity (ramipril group – from  $0.82 \pm 0.25$  u. to  $1.09 \pm 0.14$  u.  $P < 0.001$  and losartan group –  $0.86 \pm 0.22$  u. to  $1.12 \pm 0.37$  u.  $P < 0.001$ ), but the changes of AT III and factor XIII were unreliable. As to state of fibrinolysis, we have found the incrimination of the activity after this period of treatment. Administration of ramipril forwards more considerable raise of PFA, the absolute advantage ramipril against losartan was set at CAR = 16.4%, OR = 1.92 (0.74–9.84).

**Conclusions:** Both drugs (ramipril and losartan) have a certain equal level of the influence on coagulation; however ramipril have been shown greater ability on the changes of fibrinolytic activity.

### PO113 | Is There an Association of Diffuse Large B-cell Lymphoma with Coronary Artery Disease?

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**Background:** The association of malignancies with venous thromboembolism is known but the association with arterial thromboembolism is not so clear. There is also insufficient data on the association of certain lymphoma entities with coronary artery disease (CAD).

**Aims:** To determine the prevalence of CAD in different types of lymphoma.

**Methods:** We collected data retrospectively from patients with Hodgkin's and non-Hodgkin's lymphoma at the General Hospital Dr. Josip Benčević from the beginning of 2011. by August 2020.

**Results:** 121 patients were included in this study, 67 (55%) female. 11 (9%) patients had CAD, 8 male and 3 female. Out of a 121 patients with lymphoma, 51 (42%) had diffuse large B-cell lymphoma (DLBCL), 13 (11%) had follicular lymphoma (FL), other indolent lymphomas had 20 (17%), 13 (11%) had Hodgkin's lymphoma, T lymphomas 6 (5%) and 18 (15%) patients had other types of lymphoma. The time from the first manifestation of CAD to the diagnosis of lymphoma ranged from 3 months to 20 years. Of the 11 patients with CAD, 7 (64%) had DLBCL, 2 (18%) small cell lymphoma, 1 (9%) hairy cell leukemia, and 1 (9%) FL. No one had CAD after lymphoma diagnosis.

**Conclusions:** This study suggests a higher presence of CAD in patients with DLBCL than in other types of lymphoma. The prevalence of CAD in DLBCL is almost twice as high as in the general population (6.7% for the general population older than 20 years) while for other types of lymphoma it is similar to prevalence in the general population. Interestingly in our study was higher prevalence of female with lymphoma while CAD was almost 3 times more common in male. Further studies with more patients are needed to confirm this observations and eventually to find a link between DLBCL and CAD.

### PO114 | Endothelin and General Oxidative Ability as Markers of Deadaptation in Sailors in the conditions of the Arctic Flight

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**Background:** One of the areas of clinical medicine is the study of the mechanisms of adaptation of the vascular endothelium as a risk factor for thrombosis.

**Aims:** The study aimed to determine the possible relationship between the development of endothelial dysfunction and the antioxidant system with modifiable risk factors in a trans-litudinal flight in the Arctic.

**Methods:** The prospective study included 32 crewmembers of the research vessel «Mikhail Somov» during the «TransArctic-2019» integrated marine scientific expedition. Venous blood sampling was carried out before the went on a voyage (zero point) to the city of Arkhangelsk (64°33' north latitude 40°32' east longitude) and at the highest point of the expedition - Hayes Island (80°34' north latitude 57°41' east longitude). The determination of the concentration of endothelin-1 and the total antioxidant ability of serum (AOS) by enzyme-linked immunosorbent assay. The study was supported by a grant from the Russian Foundation for Basic Research - project No. 18-00-00814-COMFI (18-00-00478).

**Results:** Statistically differences were obtained in the concentration of endothelin at zero ( $M = 4.79 \pm 2.1$ ) pg/ml and high points ( $M = 7.02 \pm 2.42$ ) pg/ml,  $t = -3.6532$ ,  $df = 31$ ,  $P < 0.001$ , the concentration of endothelin-1 significantly increases, which indicates the first signs of the formation of maladaptation of the vascular endothelium in the form of vasoconstriction. 84.4% of crewmembers at a high point showed a high overall antioxidant ability, which may indicate compensation for antioxidant defence mechanisms. It was shown that AEC in the study group among smokers was statistically significantly higher than in non-smokers.

**Conclusions:** Moreover, the predominance of high AOC among the crew of the vessel indicates an increased oxidative load on the human body to neutralize the excess amount of reactive oxygen species.

### PO115 | Seasonal Changes of Platelet Aggregation Indexes at the Patients with Stable Angina

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**Background:** Seasonal variations of cardiovascular complications is signed by different authors (Turin T. C. et al., 2008; Khan F. A. et al., 2005). The activation of clotting is rapid protective reaction to vessel damage. At the same time, the studies which present correlations