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therapeutic diseases and pathological conditions. This work was supported by the grant of the Russian Science Foundation No. 21-15-00022.

**EP313 / #1210, TOPIC: ASA03 - DYSLIPIDEMIA AND RISK FACTORS / ASA03-01 EPIDEMIOLOGY OF CARDIOVASCULAR DISEASES AND RISK FACTORS, POSTER VIEWING SESSION.**

**ACHIEVING THE LDL-C GOAL IN INDIAN PATIENTS OF ACUTE CORONARY SYNDROME WITH HIGH INTENSITY STATIN**

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**Background and Aims :** High dose statin therapy is recommended to achieve the LDL-C goal <55mg/dL or >50% reduction from baseline. The aim of this pilot study is to investigate the time taken for achieving the LDL-C goal <55mg/dL and the proportion of ACS patients who could achieve the LDL-C goal with high intensity statins.

**Methods:** Statin naive >18 years old ACS patients were included in this prospective observational study. All patients were given guidelines based standard care for ACS along with oral atorvastatin 80mg/day. Before starting the high dose statin, LDL-C was measured at baseline, on Day 3,7,14 and 28. An additional measurement was done on day 42 in those patients who did not attain the goal within 28 days.

**Results:** 100 consecutive ACS patients were included. Total 460 lipid profiles were done within the period of 4-6 weeks.

Mean LDL-C at baseline (n=100)	Day 3 (n=93)	Day 7 (n=80)	Day 15 (n=74)	Day 28 (n=100)
141.6 mg/dL	114.7 mg/dL	86.6 mg/dL	57.0 mg/dL	41.7 mg/dL
%reduction in LDL-c	19.0%	40.7%	59.7%	70.6%
%of patients who attained the LDL-C goal	0	1%	47%	87%

The mean LDL-C at baseline was 141.6 mg/dL and there was a trend of reduction in LDL-c in all follow up measurements .13% patients did not achieve the LDL-C target even on Day 42

**Conclusions:** High dose statin in ACS patients leads to rapid lowering of LDL-C, which is maximum (70%) within 28 days. 87% patients achieved LDL-C goal (<55mg/dL). Beyond 28 days there was no further reduction in LDL-C.

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**CREATION OF CYBRID CULTURE WITH ANTIATHEROGENIC MITOCHONDRIAL GENOME MUTATION M.13513G>A (GENE MT-ND5)**

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**Background and Aims :** The aim of the present study was to create cybrid lines with mtDNA mutation m.13513G>A. In our previous studies, it was found that, after reaching the threshold level of heteroplasmy, mutation m.13513G>A had a protective effect in atherosclerosis (33,5%).

**Methods:** The cybrid lines were obtained by fusing rho0-culture cells of monocytic origin THP-1 and thrombocytes from study participants containing mitochondria with mtDNA mutation m.13513G>A. The heteroplasmy level of mtDNA mutation was measured with the use of an original method of M.A. Sazonova with colleagues on the basis of pyrosequencing technology.

**Results:** During the study cybrid culture with heteroplasmy level of 21,8% for mutation m.13513G>A. was created using mitochondria from a study participant with atherosclerotic plaque in the carotid artery. In addition, a cybrid culture with platelets of a conditionally healthy study participant was created, in which the threshold level of heteroplasmy of this mutation was 36,4%. A native cell culture THP-1 was a control group.

**Conclusions:** In the course of the present investigation, we obtained two cybrid cultures, containing antiatherogenic mutation of mtDNA m.13513G>A. Cybrid culture, obtained with the use of mitochondria from a patient with atherosclerotic plaques in carotid arteries had a low level of heteroplasmy by mutation m.13513G>A. Cybrid culture, obtained with the use of mitochondria from a conditionally healthy study participant, had a high heteroplasmy level by mutation m.13513G>A. The obtained cybrid cultures can be used to work out methods of gene therapy of atherosclerosis. This study was supported by Russian Science Foundation (Grant # 20-15-00364).

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**DIRECT AND INDIRECT EFFECTS OF SARS-COV-2 PANDEMIC IN SUBJECTS WITH FAMILIAL HYPERCHOLESTEROLEMIA: A SINGLE LIPID-CENTER REAL-WORLD EVALUATION**

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**Background and Aims :** We evaluated the impact of direct and indirect effects of SARS-CoV-2 infection in subjects with familial hypercholesterolemia (FH).

**Methods:** In this observational, retrospective study, 260 FH subjects had a telephone survey concerning lipid profile values, lipidologist and cardiologist consultations, and vascular imaging evaluation during the 12 months before and after the Italian lockdown. The direct effect was defined as SARS-CoV-2 infection; the indirect effect was defined as the difference in one of the parameters evaluated by the telephone survey before and after lockdown.

**Results:** Among FH subjects, the percentage of the lipid profile evaluation was lower after lockdown than before lockdown (56.5% vs 100.0%,  $p < 0.01$ ), HDL-C was significantly reduced ( $47.78 \pm 10.12$  vs  $53.2 \pm 10.38$  mg/dL,  $p < 0.05$ ) and a significant increase of Non-HDL-C was found ( $117.24 \pm 18.83$  vs  $133.09 \pm 19.01$  mg/dL,  $p < 0.05$ ). The proportions of lipidologist and/or cardiologist consultations and/or vascular imaging were lower after lockdown than before lockdown (for lipidologist consultation 33.5% vs 100.0%,  $p < 0.001$ ; for cardiologist consultation 22.3% vs 60.8%,  $p < 0.01$ ; for vascular imaging 19.6% vs 100.0%,  $p < 0.001$ ); the main cause of missed lipid profile analysis and/or health care consultation was the fear of SARS-CoV-2 contagion. The percentage of FH subjects affected by SARS-CoV-2 was 7.3%.

**Conclusions:** In conclusion, a lower percentage of FH subjects performed a lipid profile analysis as well as lipidologist and cardiologist consultations and vascular imaging evaluation after SARS-CoV-2 Italian lockdown.

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**BURDEN OF ASCVD IN ENGLAND**

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