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positive, were randomized 1:1 to REGEN-COV 1200mg SC or placebo. The primary endpoint was the proportion of participants who developed symptomatic infection (COVID-19) during the 28-day efficacy assessment period among those who were SARS-CoV-2 RT-qPCR negative and without evidence of immunity (seronegative) at baseline. A post-hoc analysis assessed efficacy in participants with CVD (including hypertension) and/or diabetes. Overall safety is reported.

**Results:** The study included SARS-CoV-2 RT-qPCR negative participants at baseline (n=2067). There was an 81.4% relative risk reduction (RRR) of symptomatic infection with REGEN-COV in the overall seronegative population (n=1505; Figure 1; Table 1). In participants with CVD (n=332) or diabetes (n=103), the RRRs of developing symptomatic infection with REGEN-COV versus placebo were 54.9% and 69.0%, respectively. Similar results were observed when analyses were performed regardless of baseline serology status. Treatment-emergent adverse events occurring at ≥2% included COVID-19, asymptomatic COVID-19, headache, and injection-site reaction (Table 2).

**Conclusions:** In study participants with CVD and/or diabetes, who are known to be at increased risk of severe disease if infected, treatment with REGEN-COV SC reduced the risk of developing symptomatic SARS-CoV-2 infection, consistent with the overall study results.

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**0100 The Phenomenon of Metformin in COVID-19 Pandemic Among Polish Patients with Type 2 Diabetes Mellitus**

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**Abstract**

**Objective:** The aim was to compare the metabolic control of patients with type 2 diabetes mellitus (DM2) before and during the COVID-19 pandemic in Poland and assess its impact on cardiovascular risk.

**Methods:** Patients with DM2, treated with metformin and/or insulin were analysed with Pearson and ANOVA correlations. Blood levels of metabolic control biomarkers were checked throughout the first pandemic wave and compared to the results obtained before the 4th of March, 2020 (1st confirmed case in Poland).

**Results:** 598 patients cases with mean weight 87.07 kg (±19.54) were analysed. 22.41% (n=134) were treated solely with insulin, 42.64% (n=255) with metformin and 28.6% (n=171) were prescribed a combination of those. The baseline HbA1c and creatinine levels were at 7.33% (±1.39) and 1.16mg/dl (±0.76) respectively and rose by 0.19% (p=0.02) and 0.07mg/dl (p=0.004).

The patient attendance for blood testing decreased by 42.18% in comparison to the pre-pandemic period. All patients have shown a rise in creatinine levels, but those treated only with metformin rose by 0.01mg/dl, which was a significantly smaller increase.

**Conclusions:** The increase in levels of creatinine and HbA1c, which may have an impact on cardiovascular risk, suggests that lockdown and its consequences resulted in a deterioration of metabolic control. Stronger support of patients and preparations for upcoming pandemic waves are necessary to avoid further complications in patients with DM2.

The improvement of renal parameters in the group of patients treated only with metformin confirms its nephroprotective effect and it still should be used as first-line treatment.

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**0101 Osteopontin in patients with metabolic syndrome and cognitive impairment**

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**Abstract**

Metabolic syndrome is associated with dysmetabolic and proinflammatory pathophysiological mechanisms, which lead to cognitive impairment. Evaluation of the effect of osteopontin as a predictor of these changes with the analysis of the neuroimaging pattern of the brain is of interest.

Purpose of the study: analysis of the role of osteopontin in patients with metabolic syndrome in the formation of cognitive impairment.

Material and Methods: the study complies with generally accepted ethical rules and included 50 patients with type metabolic syndrome (which were divided into groups according to cognitive impairment) and 25 control groups. All underwent a general clinical examination, blood sampling for biochemical parameters, including osteopontin. Magnetic resonance imaging (MRI) was performed on a Signa Creator "E" magnetic resonance tomograph, GE Healthcare, 1.5 Tesla, China: techniques were dynamic contrast and arterial spin labels, proton spectroscopy, tractography. SPSS Statistic program was used for statistical analysis.

Results: osteopontin was higher in patients with overweight, hyperglycemia, hyperuricemia, dyslipidemia, and cognitive impairment, and in the neuroimaging study with microangiopathy according to perfusion MRI, impaired integration of the white matter of the brain, as well as neurometabolism in the hippocampal region by choline, creatine and phosphocreatine metabolites in the hippocampal region, as well as their NAA/Cr, NAA/Cho, Cho/Cr ratios (p<0.05).

Conclusion: patients with metabolic syndrome and cognitive disorders revealed elevated levels of osteopon-