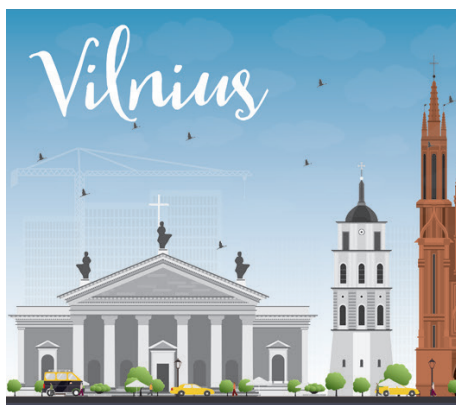




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ABSTRACT BOOK


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INFLUENCE OF COVID-19 ASSOCIATED MYOPATHY ON OUTCOMES IN CRITICALLY ILL PATIENTS

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Background and Aim. Identify muscle wasting for Covid-19 patients during intensive care unit (ICU) stay and how it affects ICU outcomes.

Material and methods. A single center prospective study of patients with the prolonged length of stay in ICU was conducted. Two patient groups, Covid-19 and nonCovid-19 patients have been analyzed. All the patients had the severity of medical condition according to APACHE II and SOFA, nutrition status according to NRS 2002 scales, the durations of ICU treatment and mechanical ventilation (MV) determined. The fat-free body mass was assessed by measuring the phase angle (PA) at 50-kHz frequency on the first, the fifth, the seventh and fourteenth day of ICU treatment. The thickness of biceps brachii, rectus femoris muscle and vastus intermedius was measured by ultrasound. Muscle strength was assessed with dynamometer on the day of discharge from the ICU.

Results. 143 ICU patients were included in the study: 101 nonCovid-19 and 42 Covid-19. There was no difference in age and gender in these patients' groups. Survival rate of both groups was not significantly different 65% vs 64%, $p>0.05$. Severity of illness regarding APACHE II score (18 vs 13, $p<0.0001$) and SOFA score (8 vs 3, $p<0.0001$) was worse in nonCovid-19 group of patients. LOS and duration on MV did not differ in both groups. PA difference comparing the 5th and 7th with the 1st days was significantly worse in Covid-19 patients. In Covid-19 patients muscle thickness (biceps brachii 8.8% vs 16.5%, $p<0.05$) was significantly worse. There was no significant difference in muscle strength measurements between groups.

Conclusions. Muscle wasting in Covid-19 ICU patients is more significant than in nonCovid-19 patients and have influence on survival rate.

Keywords: Covid-19, dynamometry, Intensive care unit, phase angle, muscle ultrasound, muscle wasting