medium molecular weight. The same derivatives were obtained in more than 10 different samples, each with two replicates, indicating the reproducibility of the test. The peptide nature of the derivatives was confirmed by the signal at 214 nm. The same results were observed in SDS-PAGE analysis used for cross-validation.

Conclusions: Both methods resulted in similar patterns of carbonylation in samples from patients with type 2 diabetes. Further studies will investigate the differences between healthy subjects and patients with type 2 diabetes with/without other comorbidities.

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P05-038
Oxidative stress after alcoholic myopathy with and without vitamin D supplementation

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Ethanol is considered a toxic substance, it causes direct and indirect effects on organs and systems leading to alcoholic myopathy. The muscle system presents a decrease in vitamin D levels among other effects. The alcohol metabolism is closely related to enzymes involved in oxidative stress and generation of ROS, such as superoxide ($O_2^{\bullet -}$) and hydrogen peroxide (H_2O_2), which trigger cellular damage. This work aimed to investigate the chronic alcohol intake effects on oxidative stress with and without vitamin D supplementation. 40 male rats (20 Wistar-W and 20 UChB- (volunteer drinkers-U) were used (CEUA 531). These animals were divided into four groups that received for 9 weeks: 12.5 μg/kg (500 IU) of cholecalciferol (Sigma C9756) diluted in olive oil (Vitamin D group: WV and UV) and vehicle by gavage (Control group: WC and UC). After this period, the animals were euthanized and EDL muscles were removed, frozen and submitted to oxidative stress evaluation. The activities of catalase (CAT), thiobarbituric acid-reacting substances (TBARS) and superoxide dismutase (SOD) and levels of $O_2^{\bullet -}$, reduced glutathione (GSH) were analyzed. The biochemistry data regarding GSH, SOD and $O_2^{\bullet -}$ analyses did not show statistical differences. The CAT values were lower in the groups: UV = 12.2 μm/mg ± 1.2; UC = 13.8 μm/mg ± 0.8 and WV = 13.3 μm/mg ± 1.2 when compared to the WC (18.5 nmol/mg ± 1.3) $p < 0.05$. There was an increase of TBARS in the WV (3.1 ± 0.3 nmol/mg) when compared to the others (UV = 2.1 ± 0.1; UC = 1.7 ± 0.1 nmol/mg; WC = 1.7 ± 0.2 nmol/mg) $p < 0.05$. Vitamin D has antioxidant action that decreases oxidation rate by same mechanisms, such as inhibition of free radicals and metal complexation. CAT is an important antioxidant system for the detoxification of H_2O_2. Its decrease could be justified by the fact that the association of vitamin D dose and ethanol intake decreased the oxidative stress. The TBARS levels showed that there was a lipid peroxidation increase in WV group. This result confirmed that the used dose of vitamin D had a pro-oxidant effect generating $O_2^{\bullet -}$ radicals and H_2O_2. Several studies on supplementation of vitamins have shown the lack of benefits due to pro-oxidant effect. Thus, the use of vitamins and other antioxidants need the definition of dose, requiring further studies on the action mechanism before prescription.

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P05-039
Determination of AB-CHMINACA and it's carboxy metabolite in urine samples

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Introduction: AB-CHMINACA is synthetic cannabinoid, an indazole derivate and CB_1/CB_2 agonist with greater affinity for the central CB_1 than CB_2 receptor. It was proved in the urine samples of seven patients who were treated in the Emergency room of the National Poison Control Centre. Al of them reported the use of different herbal preparations in order "to try something new and elevate mood".

Methodology: AB-CHMINACA and its carboxy metabolite were isolated using the liquid-liquid extraction of urine samples, carboxy metabolite after hydrolysis. The method of choice for detection is liquid chromatography-electrospray ionization–mass spectrometry with XTerra column. Source temperature 125 °C, desolvation temperature 430 °C, flow gas: desolvatacion 400 L/h, cone 50 L/h. The mobile phase: 5 mM ammoniumacetate (pH 3.5): acetonitrile.

Results: MS data were recorded in the full scan mode (*m/z* 100–500). For qualitative analysis of AB-CHMINACA and it is carboxy metabolite, the protonated molecular peaks of these compounds were monitored in the scan mode. The monitoring ions were as follows: AB-CHMINACA *m/z* 357, 241, 312, 145; it's carboxy metabolite *m/z* 358, 241, 312, 145 (Cone Voltage 30 V and 70 V)

Conclusions: The new derivatives of synthetic cannabinoids continuously appear on the market. Development of analytical methods for confirming the presence of synthetic cannabinoids in urine is important for clinical and forensic toxicologists, but also for legislative actions. We consider that the described method is suitable for the detection of AB-CHMINACA.

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P05-040
Circulating miRNAs as potential biomarker for acute endothelial toxicity

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Question: There is a need for new biomarkers of vascular toxicity. We studied ANCA vasculitis as an extreme phenotype to identify circulating miRNAs that report vascular toxicity. Vascular and kidney toxicity commonly co-exist and contribute to elevated cardiovascular risk. Circulating microRNAs (miRNAs) are novel biomarkers of disease; miR-126 is endothelial cell-enriched and may report endothelial toxicity. Thus, we first examined the relationship between miR-126 and vascular toxicity in patients with