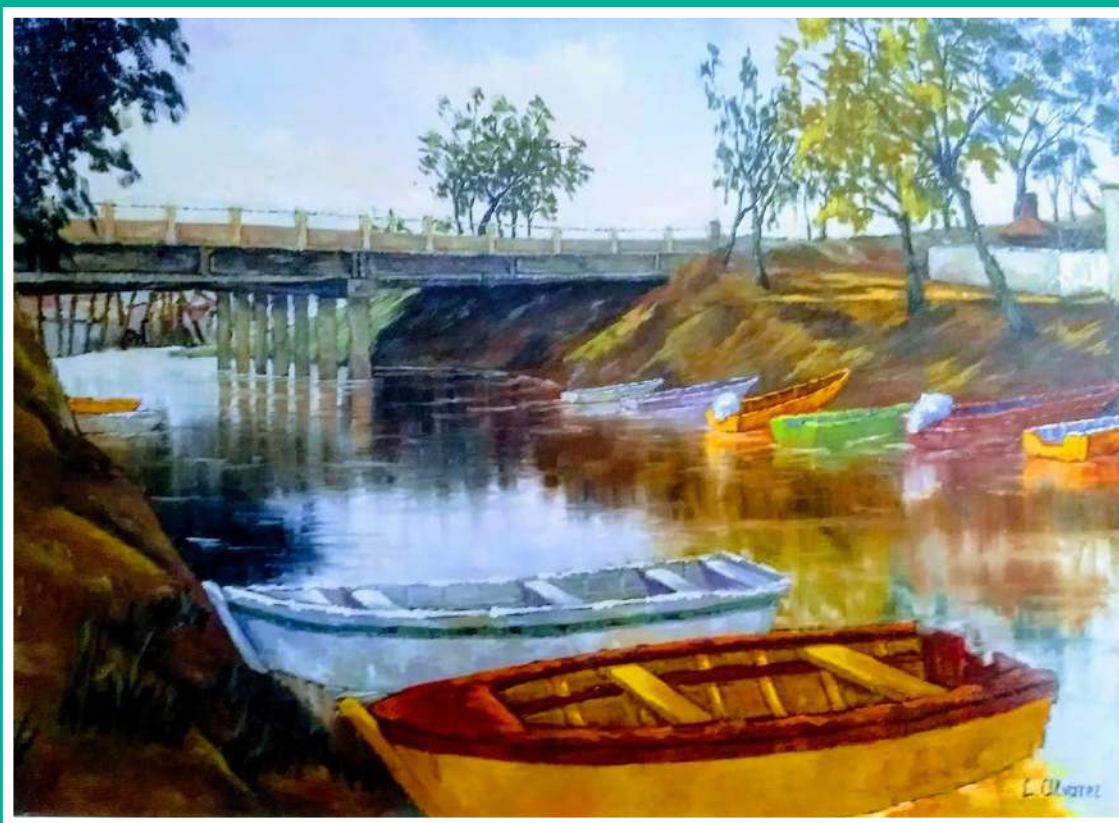


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factor 1 (IGF1) may alter the metabolism of specific carbohydrates and lipids, altering the flow of nutrients to the liver.

As IGF1 acts complementary to insulin, we decided to evaluate IGF1 levels and its relationship with heme metabolism in an AIP patients. In a population of 82 genetically diagnosed individuals, the biochemical parameters (BP) of AIP: ALA, porphobilinogen (PBG) and total porphyrins (TP) and the IGF1 levels were measured. Three groups were classified according to symptoms: Latent (L): no symptoms; Manifested (M): presented attack and BP values returned to normal; Subclinical Manifested (SM): presented attack and their BP values remained elevated.

To compare the BP and IGF1 levels between L, M and SM groups, the variables were categorized as: IGF1-n (normal) and IGF1-l (low) and for the BP: ALA, PBG and TP as normal and elevated.

There is only a significant association in the SM group ($p = 0.0029$): 84% of the patients have elevated ALA / IGF1-l and when we verify the relation between IGF1 with the three high BP simultaneously, the SM group shows a significant association ($p = 0.008$): 80% of patients with IGF1-l have the three BP high. [Irwin-Fischer bilateral and Chi square Pearson, $p < 0.05$].

We can conclude that there is a significant relationship between IGF1 levels and heme biosynthesis in AIP-SM patients.

Key words: Acute intermittent porphyria, acute attack, Insulin-like growth factor type 1

179. (439) CHARACTERIZATION OF THE CAIMAN OIL OBTAINED FROM FATTY DEPOSITS AND ITS POTENTIAL USES IN HUMANS. A HEALTHY AND SUSTAINABLE ALTERNATIVE

Marcela González^{1,2}, Pamela Leiva^{3,4}, Luciana Vera Candioti^{1,2}, Jimena Lavandera^{1,2}, Florencia Valli¹, Carlos Piña^{3,4}, Melina Simoncini^{3,4}

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The high economic value that crocodilian leather and meat has today is recognized. However, there are other derivatives such as fats from these animals, which are discarded and could be used as sources of natural oils with potential applications in food. In recent years, the demand for natural oils by the industry has increased, seeking natural alternatives, especially when we mention fatty acids (FA) of ω -3 and ω -6 families whose relationship can have different effects on health. The objective was to obtain caiman oil from fatty deposits of *Caiman latirostris* for its potential use as a dietary supplement. Oil was extracted from fat by melting at 60 °C. The FA profile was analyzed by gas chromatography. Oxidative stability was evaluated through peroxide index (PI), anisidine index (AI) and Kreiss index (KI). A microbiological study was carried out on the oil, which showed absence of total aerobic mesophilic bacteria, total coliform bacteria, *Escherichia coli* and *Salmonella*. The FA profile showed high content of oleic acid (33.4%) and linoleic acid (28.8%). Likewise, the presence of 2% α -linolenic acid was evidenced. The PI values were kept below 6 meq O₂ / Kg oil, while KI was negative and AI was not detectable. Since the consumption of a product derived from caiman fat is not part of the usual diet of the population, it was essential to choose a reliable analytical methodology with high performance, high oxidative and hydrolytic stability, without microbial load and with nutritional quality and low cost. Nutritionally, obtained caiman oil results in an excellent source of essential FA, being a healthy and sustainable alternative that could be incorporated as part of the human diet.

ids

180. (503) ANTHOCYANINS AS INHIBITORS OF α -GLUCOSIDASE AND PANCREATIC LIPASE ACTIVITY
Mosele JI, Galleano M, Fraga CG

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Food components providing glucose and fat-lowering effects in the body can be useful to attenuate the negative health effects associated to high-carbohydrates and/or high-fat diets. Here, anthocyanins were studied as potential inhibitors of α -glucosidase (α -G) and pancreatic lipase (PL) activities, two key enzymes responsible for carbohydrates and fats digestion. The anthocyanin profile of extracts obtained from bilberry (BB), blackcurrant (BC) and black rice (BR) was characterized. The capacity of extracts, pure anthocyanins, and mixtures (representative of anthocyanin extracts composition) to inhibit the activity of α -G and PL was evaluated using enzymatic assays, including acarbose and orlistat as positive controls for α -G and PL, respectively. In a concentration range of 20-320 μ g/mL, extracts showed a dose-dependent inhibitory effects on α -G activity. The calculated IC₅₀ were 87 ± 7 , 76 ± 7 and 236 ± 25 μ g/mL for BB, BC and BR, respectively. Some pure anthocyanins showed inhibitory actions (cyanidin-3-O-glucoside, delphinidin-3-O-glucoside, petunidin-3-O-glucoside) whereas the mixtures were ineffective at the assayed range concentration. In a broader concentration range (0-2000 μ g/mL), extracts did not show significant inhibition on porcine PL activity, but most of the pure anthocyanins were effective (petunidin-3-O-glucoside, cyanidin-3-O-glucoside, delphinidin-3-O-glucoside, malvidin-3-O-glucoside). No inhibition was observed for peonidin-3-O-glucoside and mixtures of compounds. In summary, anthocyanins would contribute only marginally to the in vitro α -G inhibition. Regarding PL activity, their inhibitory capacity was reduced when present in extracts or mixtures, suggesting complex interactions with other components under the in vitro used conditions. In vivo studies are needed to confirm the effects of extracts/pure anthocyanins on enzymatic activities observed here. UBACyT 20020170100586BA, PIP-CONICET 11220170100585CO, PICT 2018-03052.

181. (536) OxLDL-INDUCED INFLAMMATION IN ISOLATED AORTA: EFFECTS OF SHORT CHAIN FATTY ACIDS.

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Oxidized low density lipoproteins (OxLDL) has been implicated in NLRP3 inflammasome activation in the vascular wall. Short-chain fatty acids (SCFA) produced by gut microbiota, could provide beneficial effects in attenuating endothelial dysfunction and inflammatory response associated with metabolic diseases. The aim of this work was to evaluate select short chain fatty acids (SCFA) on the OxLDL-induced NLRP3 activation in aorta by using an ex-vivo model. Thoracic aortas from male Sprague Dawley rats were cut in rings, and incubated with OxLDL (0-200 mg/ml) or vehicle for 0-120 min. At the end of the incubation periods, expression of proteins (NLRP3, procaspase-1, caspase-1, pro-IL1 β , TNF α) and detection of 4-hidroxi-nonenal adducts (4HNE) were measured by western blot in the aorta rings, and interleukin levels (IL1 β and IL18) by ELISA in the incubation media. OxLDL produced modifications in all the measured parameters, with different time-course and degree of response. The earliest responses (10 min) were observed for NLRP3 expression in aorta (increments of 25, 125, and 100% for 50, 100 and 200 mg/ml OxLDL, respectively $p < 0.05$, compared to vehicle), and for IL18 levels in the incubation media (increments of 128, 200, and 300% for 50, 100 and 200 mg/ml OxLDL, respectively $p < 0.05$, compared to vehicle). To evaluate SCFA effect on this model, before treatment with OxLDL, aortic rings were pre-incubated with 10 μ M butyrate, propionate, or acetate. Preincubation with each SCFA prevented OxLDL-induced modifications in different parameters: acetate prevented IL18 increased (-32%, $p < 0.05$), butyrate prevented TNF α increased (-21%, $p < 0.05$), and propionate prevented only 4HNE detection. In conclusion, OxLDL activates NLRP3 inflammasome in isolated aorta, and the assayed SCFA inhibited that ac-