contributes to the prevention and control of health problems of interest. The research was conducted by health professionals under the supervision of competent health authorities.

Declaration of interests: None.

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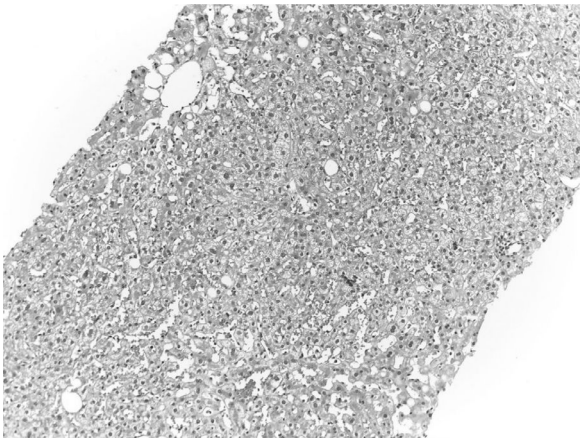

Figure 1.

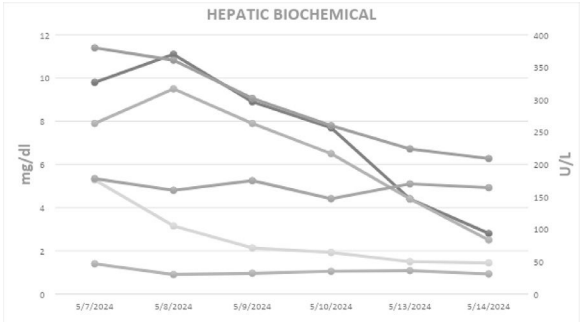

Figure 2.

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Oxidative damage to lipids improves with Omega-5 fatty acid supplementation treatment in patients with severe alcoholic hepatitis

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Introduction and Objectives: Chronic and excessive alcohol consumption causes alcoholic liver disease (ALD). Alcoholic hepatitis (AH) is a severe clinical event that develops in patients with ALD and active alcohol consumption, and it has a high mortality rate within 30 days. Inflammation and redox imbalance play a crucial role in promoting the dysfunction of hepatocytes and reducing patient survival. Glucocorticoids have a transient beneficial effect in AH; however, it is necessary to understand the effect of antioxidant therapy in this pathology. To evaluate oxidative stress of lipids in patients with alcoholic hepatitis whose treatment included Omega-5

Materials and Patients: The randomized, double-blind clinical study included two groups of patients (men and women) with severe alcoholic hepatitis: 1) Patients treated with Prednisone (40 mg/day) + oral administration of Omega-5 (0.64 g/day) (n=20; 10% women and 90% men), and 2) Prednisone + Placebo group (n=20; 15% women, 85% men). Both groups received treatment for 28 days. Alcohol consumption was calculated in g/day. Biochemical and hematological laboratory test were performed. The MELD, Glasgow, ABIC, and Lille scales were evaluated, as well as serum levels of lipid oxidation through malondialdehyde (MDA) at 7, 14, and 28 days. The data was analyzed by Kruskal-Wallis, Mann-Whitney U and ANOVA statistical tests by SPSS v.22, significance of $p<0.05$.

Results: Both groups had similar characteristics; there was no difference in severity and alcohol consumption. After 7 days of treatment, both groups of patients showed similar levels of MDA, with the highest determination of MDA observed at this point. However, a reduction in serum MDA levels was observed at 14 days (5%) in the Omega-5 group; similarly, a 22% reduction in MDA was observed at 28 days. In contrast, the placebo group showed a continuous increase in MDA levels: 19.6% and 35% at 14 and 28 days, respectively. However, there were no statistical differences, indicating the need for further studies to evaluate changes in MDA levels over six months, as well as the effects of different doses and Omega-5supplementation time.

Conclusions: The oral administration of Omega-5 fatty acid in combination with prednisone can reduce oxidative stress of lipids at the systemic level. The use of antioxidant therapy as an adjuvant may improve the redox state and inflammation, which could decrease infectious events and, consequently, mortality in alcoholic hepatitis.

Ethical statement: Clinical trial registration at NIH (ClinicalTrials.gov Identifier: NCT03732586). The protocol was approved by the Ethics and Research Committees of the General Hospital Dr. Manuel Gea González and the Faculty of Medicine at UNAM. All participants provided written informed consent, and the study was conducted in accordance with the provisions of the Declaration of Helsinki

Declaration of interests: None.

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Differences in the progression of liver disease in male and female rats induced by TAA: considerations in the development of pharmacological therapies

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Introduction and Objectives: Thioacetamide (TAA) is a hepatotoxic agent that causes fibrosis, cirrhosis, and cancer. Various doses and regimens of TAA have been tested in different murine models to validate hepatoprotective compounds. To date, only two studies have reported differences in TAA susceptibility according to sex in murine models. To compare the progression of liver disease in male and female Wistar rats induced by TAA.