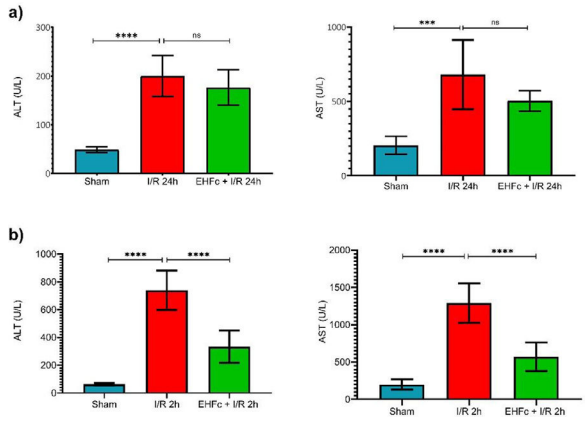

Figure 1. Evaluation of the hepatoprotective activity of the hydroalcoholic extract of *Flourensia cernua* (EHFc). Levels of serum ALT and AST in different study groups. a) I/R at 24h after reperfusion, b) I/R at 2h after reperfusion. (Mean ± SD. **** *P<0.0001*, *** *P<0.001* vs. the I/R group; n=6 for each group). Sham (healthy control group), I/R (damage control group), EHFc + I/R (treatment group).

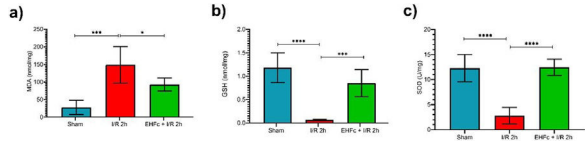

Figure 2. Evaluation of oxidative stress in hepatic tissue. a)Malonaldehyde (MDA), b)Reduced glutathione (GSH), c)Superoxide dismutase(SOD). (Mean ± SD. ****P<0.0001*, ***P<0.001*, **P<0.05* vs. the I/R at 2h after reperfusion group; n=6 for each group). Sham (healthy control group), I/R (damage control group), EHFc + I/R (treatment group).

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Overlap syndrome: Report of a case and review of the literature.

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Introduction and Objectives: Autoimmune liver disorders, like autoimmune hepatitis, primary biliary cholangitis, and primary sclerosing cholangitis, are characterized by an atypical immune response that targets bile duct damage in primary biliary cholangitis and significant portal and lobular lymphoplasmacytic inflammation in autoimmune hepatitis. Most patients have no difficulty distinguishing between the two entities. However, certain individuals exhibit symptoms of a confluence of two autoimmune liver disorders, referred to as Overlap Syndrome.

We present the case of a woman who has been diagnosed with primary biliary cholangitis with some features of autoimmune hepatitis.

Materials and Patients: A 48-year-old woman presents with a 3-year history of jaundice, night-time pruritus, fatigue, and a 10-kilogram weight loss. Her medical record includes arterial hypertension for one year of evolution and weekly consumption of 50 g of alcohol for 20 years.

Results: Blood analysis showed BT 1.4, BD 0.63, TGO 236, TGP 220, FA 2505, DHL 441, AFP 1.89, CA19-9 6.43, and a negative viral panel. Liver ultrasonography showed early-stage liver cirrhosis. Endoscopy revealed erosive gastritis. A percutaneous liver biopsy showed portal and periportal nonspecific chronic inflammation with localized necrosis. The patient was prescribed ursodeoxycholic acid TID and prednisone 50 mg QD based on the initial suspicion that he had primary biliary cholangitis. At a subsequent appointment, she presented AST 132, ALT 114, FA 583, GGT 474, positive ASMA, and ANA 1:160. The diagnosis of an overlap syndrome between primary biliary cholangitis and autoimmune hepatitis was made in accordance with the Paris criteria. The patient received prednisone 25 mg QD, azathioprine 50 mg QD, and ursodeoxycholic acid TID.

Conclusions: In the present case report, the patient's condition progressed, manifesting symptoms indicative of chronic liver injury. Immunosuppressants and ursodeoxycholic acid were administered according to guidelines, improving symptoms and biochemical indicators. Liver biopsies and noninvasive methods for liver fibrosis staging and disease progression deserve further investigation.

Autoimmune liver disorders are distinguished by an atypical immune reaction that targets the hepatocytes or bile ducts. Certain individuals exhibit symptoms of a co-occurrence of two medical conditions, referred to as Overlap Syndrome, which is associated with more severe outcomes. These outcomes include Crohn's disease, Sjögren's syndrome, cirrhosis, and hepatocellular carcinoma.

The variability of presentation and clinical characteristics in autoimmune liver disorders has made Overlap Syndrome classification, diagnosis, and treatment debated. The Paris criteria (Chazouillères 1998) are the most practical option for implementation due to their inherent simplicity and precision. Nevertheless, certain guidelines recommend against the utilization of the Paris criteria due to certain limitations. Future studies and validation of diagnostic and prognostic scores are needed for effective and timely therapy.

Ethical statement

The identity of the patients is protected. Consentment was obtained.

Declaration of interests

None

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One-year survival after liver transplantation in a group of geriatric patients

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Introduction and Objectives: Prevalence of patients with decompensated cirrhosis with requirement of liver transplantation (LT) has increased in our country. A significant percentage of patients with this condition belongs to a geriatric population, which could contraindicate LT, although trends in other countries indicate that the results of LT in geriatric patients are excellent.

To assess one-year survival of LT patients over 60 years

Materials and Patients: Retrospective, observational, and analytical study of patients over 60 years who underwent LT, evaluating survival, cold ischemia time (CIT), hot ischemia time (HIT), and donor age (DA), compared with a group of patients under 60 years who underwent LT.

We evaluated survival over time in months with a follow-up at one year of recipients under 60 years and older than 60 using the Kaplan-Meier curve and the log-rank test, with a significant alpha level <0.05.

Results: A total of 81 patients were included: 51 under (44.33 ±10.59) and 30 over 60 years (64.13 ±3.30), 31 females (38.27%) 50 males (61.72%). Etiologies of cirrhosis: alcohol intake 30.86%, autoimmune diseases 24.69%, MALFD 11%, hepatocellular carcinoma 9.88%. CIT and HIT in under and over 60 years were 313.64 ±97.69min and 29.91 ±6.14min, and 307.39 ±101.85min and 30.36 ±7.57min, respectively. DA was 35.55 ±14.33 years. Mortality rates were 11.76% (6/51) and 13.3% (4/30) in patients under and over 60 years, respectively, with a cumulative rate of 12.34% (10/81). The average survival in months was 12.27 (11.45-13.1, 95%CI) and 10.83 (9.6-12.0, 95%CI) in under and over 60 years, respectively. Comparison based on age was not statistically significant (log-rank test, Chi-square 1=0.742, p=0.389).

Conclusions: One year survival in geriatric patients after LT is equal to that of younger patients, indicating that age should not be a contraindication for LT.

Ethical statement

The protocol was registered and approved by the Ethics Committee. The identity of the patients is protected. Consentment was obtained.

Declaration of interests

None

Funding

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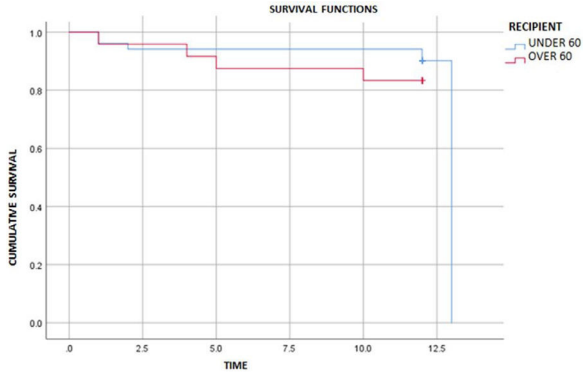

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Development of hepatic steatosis in liver transplant recipient patients.

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Introduction and Objectives: It has been reported that up to 39.7% of liver transplant recipients develop hepatic steatosis at some point during follow-up, with recurrence being more likely than de novo appearance. Specifically in patients previously known to have MAFLD, this condition is favored by the components of the metabolic syndrome (particularly being overweight), to which is added the use of immunosuppressive drugs. The objective is to determine the prevalence of hepatic steatosis by ultrasound in patients receiving liver transplants at the Hospital de Especialidades del Centro Médico Nacional La Raza.

Materials and Patients: In this study were included liver transplant recipients treated in the period from 2017 to 2023 who had a liver ultrasound at least six months after transplantation. The diagnosis of hepatic steatosis was established by an increase in the echogenicity of the liver parenchyma, which is equal to or exceeds the echogenicity of the pancreas.

Results: A sample of 40 patients was analyzed, 19 men (47.5%) and 21 women (52.5%), with age of 52.05 ±10.49 years. The most common causes of liver disease were hepatitis C virus infection (32.5%), MAFLD (17.5%), and autoimmune hepatitis (15%). The most frequent comorbidity was diabetes (20%)(Chart 1). Hepatic steatosis was found in 25% of cases (50% men and 50% women) (Graph 1). The most frequent etiology of liver disease in patients who developed steatosis was MAFLD (20%), while in those who did not develop steatosis it was HCV infection (40%), without statistical significance. When compared with patients without steatosis, there were no statistically significant differences in post-transplant weight and BMI (69.2 vs. 67.0 kg, p= 0.601; BMI 26.0 vs. 25.0, p=0.529) or pre-transplant MELD (14.3 vs. 16.4, p= 0.251)

Conclusions: In our study, the prevalence of steatosis found was similar to that reported by other authors. They have not evidenced statistically significant differences in age, gender, comorbidities, anthropometry, or etiology of cirrhosis. Patients need close monitoring to identify the development of this complication in a timely manner.

Ethical statement

The protocol was registered and approved by the Ethics Committee. The identity of the patients is protected. Consentment was obtained.

Declaration of interests

None

Funding

This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

Table 1
Characteristics of people who developed hepatic steatosis.

Variable	Patients who developed steatosis (%) n= 10 (24.3)	Patients who didn't develop steatosis (%) n= 31 (75.6)	p value
Sex			**0.023**
Male	8 (80)	12 (38.7)	
Female	2 (20	19 (61.2)	
Age	52.4±12.3	51.3±10.3	0.818
Comorbidities			
Diabetes	4 (40)	4 (12.9)	0.060
Hypertension	1 (10)	2 (6.4)	0.708
Hypothyroidism	0 (0)	4 (12.9)	0.232
Etiology			0.192
MASLD	4 (40)	3 (9.6)	

(*continued*)