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Hepatology Highlights

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Nonalcoholic fatty liver disease (NAFLD) in Brazil. Clinical and histological profile

Cotrim H, et al. This is an epidemiological and clinical study carried out in Brazil. The authors studied 1280 patients from 16 Brazilian centers. The mean age of patients was 49.68 ± 13.59 years; 53.3% were males and 85% were asymptomatic. Hyperlipidemia was observed in 66.8% cases, obesity in 44.7%, overweight in 44.4%, diabetes in 22.7%, and toxins exposure in 10%. Metabolic syndrome was found in 41.3% cases. Elevated levels of ALT, AST and GGT were reported in 55.8%, 42.2% and 63.1% cases, respectively. Liver biopsy performed in 437 cases showed: isolate steatosis in 42% cases, steatohepatitis in 58% and 27% of them also presented fibrosis. Cirrhosis was observed in 15.4% and hepatocellular carcinoma in 0.7%. The authors concluded that NAFLD in Brazil is more frequent in asymptomatic males. Also the steatohepatitis with fibrosis and cirrhosis were a significant diagnosis.

Although the present study showed similar metabolic profile of Brazilian patients with NAFLD than those previously reported in other studies around the world, it is important to analyze carefully the results and give some comments. Firstly, to my knowledge, this is the first study in Latin America that includes a large number of patients from various centers of Brazil. In fact, the sample size is large and representative of the general population, only few studies on NAFLD such as those carried out in the United States[1] and in the North of Italy[2] have included a large sample size. It would be convenient if the authors of the present study could analyze their results by ethnic group like in the Dallas study did. Brazil is a country with a mixed population: white, mixed white and black, black, japanese, arab, and other Amerindian groups.[3]

Secondly, the number of liver biopsies performed was important especially because the authors found 15.4% of patients with cirrhosis and 0.7% with hepatocellular carcinoma in asymptomatic patients. In this regard, it has been suggested an association between non alcoholic steatohepatitis (NASH) and cryptogenic cirrhosis.[4] Also two studies have demonstrated an association between obesity and liver cancer. Moller and colleagues[5] noted an increased risk of liver cancer (relative risk = 1.9) among obese patients discharged from Danish hospitals. In other prospective study carried out in the United States, the researchers followed 900,000 subjects for 16 years, controlling for alcohol use and stratifying cancer death risk by BMI. Obese women were found to have an increased risk of death from liver cancer of 1.68 compared with non obese contemporaries. Obese males had 4.52 times the risk of death from liver cancer compared with non obese peers.[6]

The impact of diabetes mellitus in mortality of patients with compensated liver cirrhosis-a prospective study

Jáquez-Quintana et al. The conclusions of the present study are interesting but not so original. However, it deserves to comment for two reason: 1) It is one of the few studies carried-out in Mexico and, 2) In Mexico an alarming increase in the prevalence of type 2 DM has occurred. In 1995, 4% of the population had type 2 DM, by 2006 this had risen to 7%.[7] It is estimated that in Latin America the overall prevalence of type 2 DM in 2025 will be 8.7%, and is expected to be higher in Mexico and Brazil.[8]

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The aim of the present study was to evaluate the impact of DM on mortality and to identify predictors of death. The authors studied 110 patients: 60 without DM and 50 with DM. They found that diabetic patients had significantly higher frequency of cryptogenic cirrhosis, anemia, hypoalbuminemia, and hypercreatininemia. They also had significantly higher BMI and Child-Pugh score. The 2.5- years cumulative survival was significantly lower in patients with DM (48 vs. 69%, $p < 0.05$). The authors concluded that DM was associated with a significant increase in mortality in patients with compensated liver cirrhosis. Serum creatinine > 1.5 mg/dL and Child-Pugh score class C were independent predictors of death.

It is very well known that type 2 diabetes is prevalent in various chronic liver diseases, particularly nonalcoholic fatty liver disease, chronic HCV, hemochromatosis, and alcoholic liver disease. Also type 2 diabetes is coexistent or it is associated with cirrhosis and more severe complications and higher mortality in those patients. In the present study the investigators prospectively studied 110 patients. They found that the 2.5- years cumulative survival was significantly lower in patients with DM. Although the follow up was short, the difference is higher than 20% among liver cirrhosis patients with and without type 2 DM. Interestingly, one of the main studies that point out the importance of relationship between type 2 diabetes and mortality from hepatic diseases comes from Verona. In that study the investigators studied 7,148 patients with known type 2 diabetics and followed them up from 1 January 1987 to 31 December 2001 to assess their life status. When the gastrointestinal diseases were analyzed in more detail, a very high (standardized mortality ratio) SMR was found for deaths from chronic liver diseases and cirrhosis (ICD-9: 571; SMR 2.52, 95% CI 1.96–3.20) in both genders.[9] Another interesting study carried out in Japan evaluated whether oral glucose tolerance test (OGTT) is useful in assessing the prognosis of patients with liver cirrhosis.[10] The researches enrolled fifty-six patients with liver cirrhosis in a prospective cohort study. DM was diagnosed in 21 subjects (38%), impaired glucose tolerance (IGT) in 13 subjects (23%), and normal glucose tolerance (NGT) in 22 subjects (39%) using OGTT. The cumulative survival rates of patients with liver cirrhosis and NGT were 94.7% at 5 yr; liver cirrhosis and IGT, 68.8% at 5 yr; liver cirrhosis and DM, 56.6% at 5 yr. The survival rates of patients with liver cirrhosis and DM significantly differed from those with NGT. Finally more recently our group observed a high prevalence of type 2 DM in patients with chronic liver disease.[11]

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