

propensity for cardiovascular deaths and cirrhosis. Nowadays, elastography is able to detect safely fibrosis. Risk factors identification which are associate with progressive disease and cirrhosis complications allow adequate treatment for MAFLD.

**Objectives:** Estimate and evaluate liver fibrosis and sarcopenia in MAFLD present in high risk patients – obesity, metabolic syndrome and diabetes 2 type diseases. Identification of risk factors for progressive disease.

**Methods:** All patients enrolled were submitted to clinical, antropometric assessment and blood tests. The non-invasive assessment of MAFLD and fibrosis stage was performed by ultrasound, FLI-score and elastography. Sarcopenia was evaluated by Dual energy X-ray absorptiometry (DXA) – Baugarten index- and by bioimpedancy. Numerical variables were analyzed by Mann-whitney and Anova tests. Categorical variables were analysed by Fischer's exact test.

**Results:** 42 patients were included until now, 87% women e 13% men; Median age was 66 (52-61) years. Three patients did not had steatosis(n=26). Eight participants (31%) had fibrosis >=2. One patient was classified as sarcopenic, Median IMC was 31,8 Kg/m<sup>2</sup> (22,8-44); Coefficient attenuation parameter (CAP), ferritin and D vitamin were not different between the fibrosis and non fibrosis groups. Fibrosis was associated with higher AST, p value of 0,04; ALT and fibrosis was not correlated, p value of 0,07.

**Conclusion:** All considerations must be taken with caution because of the small group of patients. The steatosis high risk study population: metabolic syndrome, obesity and diabetes type 2 patients had a higher fibrosis frequency than in general population, 31%, and no correlation with sarcopenia in this small population. The AST level was correlated with fibrosis in steatosis group patients.

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#### P-21 BONE MASS, VITAMIN D LEVELS AND NONALCOHOLIC FATTY LIVER DISEASE

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**Background and Aims:** Nonalcoholic fatty liver disease (NAFLD) is a multisystemic disease that can affect several systems and tissues. Recently, low bone mass density (BMD) and vitamin D deficiency were been associated with the severity of NAFLD and there has been significant scientific interest in the relationship between vitamin D, BMD and NAFLD. This study aimed to assess the status of vitamin D and BMD in liver fibrosis and in NAFLD.

**Methods:** Adults without vitamin D replacement and with established risk factors for the development of NAFLD were selected, such as: obesity, dyslipidemia, type 2 diabetes and metabolic syndrome. The non-invasive assessment of NAFLD and degrees of fibrosis was performed by ultrasound (US-FLI) and ultrasound elastography. BMD was measured with dual energy X-ray absorptiometry (DXA). The 25 (OH)D3 was determined using chemiluminescent immunoassay technology.

**Results:** A total of 42 participants were enrolled and hepatic steatosis was present in 24. All data are presented as median (IQR) or n (%). Age 66 (52-61) years, 36 (85.7%) were women. The median of 25 (OH)D3 levels was 21 (18-28) ng/mL. The frequency of liver fibrosis, low levels of vitamin D (< 20 ng/mL) and low BMD was, respectively:

29%, 44% and 61%. We found 5.5% osteoporosis, 50% osteopenia and 5.5 low BMD for age.

**Conclusion:** The frequency of low BMD and low Vit D levels is higher in the population with steatosis and high incidence of liver fibrosis than in the general Brazilian population.

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#### P-22 ANALYSIS OF FEATURES ASSOCIATED WITH DIFFICULTY IN SCREENING AND EARLY DIAGNOSING HEPATOCELLULAR CARCINOMA IN RISK PATIENTS

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**Introduction:** Several barriers to access hepatocellular carcinoma (HCC) screening in Brazil and the large number of patients diagnosed at advanced disease stages, without prospect of curative treatment, are indicative that access to early HCC diagnosis and treatment is not equitably guaranteed for entire population.

**Aims:** The aim of the current study is to investigate the determining factors hindering the access to HCC screening and early diagnosis, based on abdominal ultrasound (US) application to risk patients.

**Methods:** Descriptive and longitudinal study carried out in reference outpatient clinic, based on questionnaire application to patients at risk for HCC.

**Results:** Fifty patients (mean age of 59 years), whose main disease etiology lied on alcohol, and hepatitis B and C viruses, were evaluated; 76% of them underwent US monitoring on a regular basis and 58% understood the importance of undergoing such an examination. The main barriers to access examination comprised scheduling (25%) and financial issues (12.5%). Eight patients were diagnosed with HCC (16% of sample), 50% of them were diagnosed at the first consultation and 37.50% did not know about the importance of such diagnosis (Table); curative treatment was no longer applicable to 62.50% of these patients.

**Conclusion:** It is worth emphasizing the essential role played by half-yearly screening in the early diagnosis and curative treatment of HCC. It is necessary developing policies focused on identifying and placing HCC patients at risk in health surveillance programs, as well as on providing greater access to, and education about the important role played by these exams.

**Table** Analysis of epidemiological profile of patients diagnosed with HCC in a hepatology service.

Analyzed variables	Groups		All cases (n = 8)
	Non-cirrhotic (n = 2)	Cirrhotic (n = 6)	
<b>Male sex n (%)</b>	2 (25)	1 (12.5)	3 (37.5)
<b>Age (mean, in years)</b>	47.5	61.6	58.1
<b>Chronic liver disease etiology n (%)</b>			
Alcohol		2 (25)	2 (25)
HBV	1 (12.5)	1 (12.5)	2 (25)
HCV	1 (12.5)		1 (12.5)
HCV + alcohol		1 (12.5)	1 (12.5)
<b>Frequency of consultations n (%)</b>			

(continued)