

# PSORIASIS SEVERITY IS RELATED TO THE SEVERITY OF NON-ALCOHOLIC FATTY LIVER DISEASE

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## Introduction

Higher prevalence of non-alcoholic fatty liver disease (NAFLD) in psoriatic patients is well described in recent literature. However, it has not been reported whether a greater psoriasis severity is related to more severe NAFLD.

## Materials and methods

We conducted a prospective study of psoriatic patients who were also investigated by the Gastroenterology team between September 2017 and September 2018. Inclusion criteria: NAFLD (histologic steatosis >5%, sonographic steatosis >248 dB/m; no other hepatic condition and less than 30 g/d of alcohol intake) and severe psoriasis. Exclusion criteria: mild psoriasis (PASI < 10). A Linear regression analysis of the hepatic and dermatologic characteristics was performed. Mild NAFLD was described as hepatic biopsy showing fibrosis < F3, or FIB4 was less than 1.3 or elastometry less than 7.1 kPa in those patients where a biopsy was not performed. Severe NAFLD was established when hepatic biopsy showed fibrosis ≥F3, or FIB4 was >2,67 or elastometry was >9,6 kPa in those patients where a biopsy was not taken. Severe psoriasis was defined with PASI >10, taking into account the highest historic PASI value of every patient.

## Results

Sixty-four patients with severe psoriasis and NAFLD were included. Characteristics (mean): age 53.4 year old, men 64.1 %, BMI 30.9 kg/m<sup>2</sup>, ALT 33 UI/l; GGT 30 UI/l, platelets 259 x10<sup>3</sup>/mL, diabetes 53.1%, hypertension 42,2%, triglycerides 135mg/dL, SMet 34.4%, vitamin D 21 ng/mL, FIB4 0.9, elastometry 6.1 kPa, biologic treatments 61%, highest historic PASI value 11.2 (p25-p75: 6.8-16.3). Twenty-two hepatic biopsies were taken (34%): steatosis >30% in 59.1%, steatohepatitis 63.3%, F3-F4 9.1%. After the linear regression analysis, only age and highest PASI were associated with the elastometry value, remaining so after the multivariate analysis, with an age-related B coefficient of 0.18 (CI95% 0.03-0.32; p=0.019) and a PASI-associated B coefficient of 0.26 (CI95%: 0.09-0.43; p=0.005). With the same age, an increase by one in the PASI value implies, on average, an increase of 0.26 kPa in elastometry.

## Discussion

Psoriatic patients with NAFLD have a more severe elatographic hepatic damage if the psoriasis severity is higher.

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**Psoriasis**