THE ROLE OF IRON RELATED GENE VARIANTS IN LIVER DISEASE SEVERITY AND IRON METABOLISM PARAMETERS IN CHRONIC HEPATITIS C PATIENTS TREATED WITH DIRECT-ACTING ANTIVIRALS

INTRODUCTION AND OBJECTIVES
- Chronic hepatitis C (CHC) is usually associated with iron overload, which may modulate the severity of liver disease.
- Direct-acting antivirals (DAAs) have made CHC treatment faster and more efficient. However, little is known about their effect on liver disease severity and iron metabolism disruption.
- This study aimed to evaluate the role of iron related gene variants in liver disease severity and iron status associated parameters in CHC patients treated with DAAs.

MATERIALS AND METHODS

RESULTS

PRE-THERAPEUTIC
- Patients with higher fibrosis grade (F3/4) had:
  - Increased levels of serum iron (p=0.030), total iron-binding capacity (p=0.025) and ferritin (p=0.026), and decreased haptoglobin (p=0.048).

POST-THERAPEUTIC
- Increased frequency of patients with lower fibrosis grade (F1/2) (p <0.001).
- Decreased serum iron (p = 0.007), transferrin saturation (p <0.001) and ferritin (p = 0.007), and increased haptoglobin (p = 0.001).

CONCLUSION
- Specific genetic variants in iron related genes may have a relevant role in the predisposition for severe liver disease in CHC patients before DAAs treatment, and in the improvement of iron status after HCV clearance.


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