

## **BIOLOGICAL AND CLINICAL FEATURES IN METABOLIC AND VIRAL LIVER DISEASE**

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Background: Data on variations of overweight and insulin resistance associated to metabolic or viral etiology of liver disease are scarce and motivated this direct comparison. Methods: Five groups of patients with liver disease due to type 2 diabetes mellitus (T2DM) and/or chronic hepatitis B (CHB) or C (CHC) were formed: 30 subjects with T2DM, steatosis and CHB (DM-CHB), 37 subjects with T2DM, steatosis and CHC (DM-CHC), 55 subjects with T2DM and steatosis (DM), 17 subjects with CHB, no T2DM or steatosis (CHB), 19 subjects with CHC, no T2DM or steatosis (CHC). All patients gave an informed consent. Data on age, gender, anthropometric measurements, fasting plasma concentrations of glucose and insulin were collected, and HOMA-IR was calculated. Results: Patients in groups DM and DM-CHB had higher mean values of the body mass index (BMI) compared to group DM-CHC ( $p=0.05$ ) and to groups CHB and CHC (both  $p=0.001$ ). Mean waist circumference (WC) values were higher in all groups including diabetic patients, compared to groups CHB and CHC (all  $p<0.05$ ). Mean HOMA-IR values were also higher in all groups including diabetic patients, compared to groups CHB and CHC (all  $p<0.05$ ), but not different between groups DM-CHB and DM-CHC, or CHB and CHC. Differences in HOMA-IR disappeared when adjusted based on BMI, but were maintained (to a reduced significance level though) when adjusted based on WC values. Conclusions: Insulin resistance levels seem to be associated rather to the global degree of excess weight measured by BMI, than to the presence of T2DM or CHC.