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Inflammatory-nutritional scores in the diagnosis of NASH and liver fibrosis

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BACKGROUND: The aim of the present study was to investigate the possible correlation between various inflammation-nutritional scores to histological determined Non-Alcoholic Steatohepatitis (NASH) and other liver injury suggestive for Non-Alcoholic Fatty Liver Disease (NAFLD) in a bariatric population.

METHODS: We evaluated consecutively and retrospectively all the patients referred to the department of bariatric surgery in Trieste, Italy. Inflammation-nutritional scores were calculated starting from pre-operative hematologic data. Liver biopsy was performed at the time of bariatric surgery (sleeve gastrectomy or gastric bypass) and pathological assessment was performed using Kleiner-Brunt staging system (NAS score).

RESULTS: Glasgow Prognostic Score/modified Glasgow Prognostic Score (GPS/ mGPS) and Prognostic Index (PI) were associated to the diagnosis of NASH (p= 0,024 and p=0,03 respectively). The presence of perisinusoidal and/or periportal fibrosis was correlated to Prognostic Nutritional Index (PNI) and Platelet-to-Lymphocyte ratio (PLR) values (p=0,02 and p=0,009 respectively).

CONCLUSIONS: GPS/mGPS and PI are statistically associated to the histological diagnosis of NASH. Further studies on large series are needed to better understand the relationship between these serum markers and liver injury in obese patients.

KEY WORDS: NAFLD; Liver fibrosis; Obesity: Inflammatory-nutritional scores; Non-invasive diagno