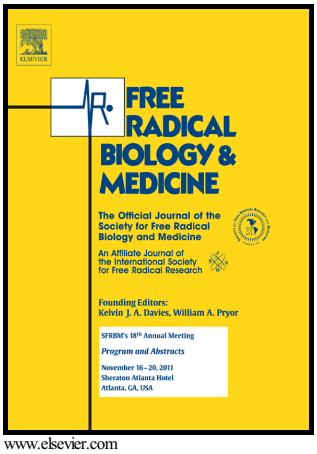


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# B2-LYMPHOCYTE RESPONSES TO OXIDATIVE STRESS-DERIVED ANTIGENS CONTRIBUTE TO THE EVOLUTION OF NONALCOHOLIC FATTY LIVER DISEASE (NAFLD)

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**Abstract**

Recent evidence implicates adaptive immunity as a key player in the mechanisms supporting hepatic inflammation during the progression of nonalcoholic fatty liver disease (NAFLD). In these settings, patients with NAFLD often show an increase in the circulating levels of antibodies against oxidative stress-derived epitopes (OSE). Nonetheless, the actual role of humoral immunity in NAFLD is still unclear. This study investigates the contribution of B-lymphocytes to NAFLD evolution.

B-lymphocyte immunostaining of liver biopsies from NAFLD patients showed that B-cells were evident within cell aggregates rich in T-lymphocytes. In these subjects, B/T-lymphocyte infiltration positively correlated with both circulating IgG targeting oxidative stress-derived epitopes (OSE) and interferon-γ (IFN-γ) levels. Furthermore, high prevalence of lymphocyte aggregates identified patients with more severe lobular inflammation and fibrosis. In mouse models of NAFLD, the onset of steatohepatitis was characterized by hepatic B2-lymphocytes maturation to plasma cells and by

[1] These authors equally contributed to the study.