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BOOK OF ABSTRACTS

Bionormalizer, a novel natural antioxidant, prevents the abstinence-induced lipoperoxidation in moderate drinkers

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The aim of this investigation was to study the oxidative phenomena taking place in the early recovery phase after alcohol withdrawal. Further, the effects of a novel natural antioxidant, i.e. Bionormalizer (BN), in such clinical setting was studied. Forty-six alcoholics (HBV and HCV negative) with moderate drinking habits (daily ethanol intake: >80g - <120g) were enrolled and divided in two groups given either placebo or 9g/nocte of BN by mouth for one week. Patients agreed to stop alcohol intake and daily blood sampling was obtained for routine tests and to check plasma and erythrocyte level of MDA, SOD, GPX and hydroperoxide level. Groups were comparable as for initial routine blood biochemical and antioxidant parameters (selenium, α -tocopherol, ascorbic acid and erythrocyte GPX), as well as smoking habit. BN Two patients on BN were later excluded for protocol violation. BN prevented the early increase of plasma TBARS observed in placebo group enabling a near-to-normal level also of erythrocyte MDA already on the fourth day. BN also prevented the significant drop of erythrocyte GPX and the transient decrease of plasma SOD observed in placebo group. Despite alcohol withdrawal, plasma lipid hydroperoxide remained significantly elevated in placebo group but this phenomenon was rapidly improved by BN. These data suggest that a pro-oxidative condition with an avid consumption of SOD and glutathione still takes place once alcohol ingestion is stopped while confirming the enhanced susceptibility to oxidative stress due to derangement of structural membrane lipids in patients with alcohol-related liver disease. BN is able to significantly prevent free radical-mediated lipoperoxidative changes occurring soon after alcohol withdrawal while fastening the recovery mechanisms. Alcoholics would potentially benefit from increased dietary supplementation of truly effective natural free radicals-scavengers, such as Bionormalizer.