Efficacy of a Liver Protective Herbal Candy in Overweight and Obese Adults with Liver Health Risk: A Randomised, Placebo-Controlled Clinical Trial.

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Non-alcoholic fatty liver disease (NAFLD) is increasingly prevalent among overweight and obese populations. This study evaluated the hepatoprotective efficacy of LivosBEE™, a novel herbal candy formulation, in overweight and obese adults with liver health risk factors. A randomised, single-blind, placebo-controlled trial was conducted over ten weeks with 30 participants (BMI ≥ 25 kg/m²) aged 20-55 years. The treatment group received 5 g daily of LivosBEE™ (2.5 g twice daily), while the control group received placebo. Biochemical assessments including liver function markers [Alanine Aminotransferase (ALT), Aspartate Aminotransferase (AST), Gamma-Glutamyl Transferase (GGT), Alkaline Phosphatase (ALP), bilirubin], lipid profile (total cholesterol, triglycerides, High-Density Lipoprotein, Low-Density Lipoprotein), and glycemic markers (Fasting Blood Glucose, Triglyceride-Glucose Index) were measured at baseline, week two and week eight. Phytochemical analysis of herbal candy revealed that the total phenolic content was 28.56 ± 1.35 mg GAE/g, total flavonoid content 8.45 ± 0.5 mg RE/g and DPPH radical scavenging activity of 64.54 ± 1.38%. ALT level of the treatment group showed a statistically significant reduction from baseline to week two ($p=0.034<0.05$) and baseline to week eight ($p=0.002<0.05$), with significant differences between groups at endpoint ($p=0.022<0.05$). AST levels also decreased significantly within the treatment group, from baseline to week two ($p=0.003<0.05$) and baseline to week eight ($p=0.007<0.05$), though between-group differences were not statistically significant. GGT levels were maintained at stable ranges in the treatment group with significant difference from the control group ($p=0.028<0.05$). Bilirubin levels significantly decreased within the treatment group ($p=0.04<0.05$), from baseline to week two and baseline to week eight, though between-group differences were not statistically significant. ALP, Lipid profile markers and glycemic parameters showed no significant changes between groups or within groups. These findings demonstrate that LivosBEE™ effectively reduces particular liver function markers. Therefore, LivosBEE™ could have potential beneficial effects on hepatoprotection.

Keywords: Non-alcoholic fatty liver disease, Herbal candy, Hepatoprotective, Liver function markers, Antioxidant

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