# ABSTRACT

Epidemiological studies showed that intake of high fat diet induced obesity and physiological imbalance in mice. The present study was conducted to evaluate the detrimental effects of consuming locally available Banaspati ghee. To evaluate it, three groups were formed, the first (n=5) was control which was given normal feed. While the second group was given the 10% ADIL and third group was given 10% DIL-DIL mixed with the feed. For the oxidative parameters, biochemical tests lipid peroxidation (LPO), catalase (CAT), glutathione-S-transferase (GST), glutathione reductase (GSH) tests were performed. To assess the organ functions, following tests were conducted including creatinine, alkaline phosphate (ALP), alanine-S-aminotransferase (ALT) and aspartate aminotransferase (AST), were evaluated. It was found that there was increase in weight of all groups of mice. LPO and CAT were found to significantly increase in liver and kidney of both male and female mice experimental groups. GSH level for male and female liver was increased but in female kidney it showed decrease in trend while showing increase for male kidney. ALP concentration was decreased in female with increase of trend in male mice. AST and ALT concentration was decreased in male with increase of trend in female mice. Creatinine level was found to increase in both male and female experimental groups than control. So, it was concluded that unprocessed ghee available in market can cause damage to vital organ like liver and kidney. In general female physiological system seems to be more prone to damage caused by these diets as compared to male physiological system.