

## ABSTRACT

Mulberry is traditionally being used as a natural drug to treat various disorders. Mulberry leaves retain various essential phytochemicals. Oxidative stress is the most basic reason of ageing. The main purpose of this study was to evaluate anti-ageing and anti-oxidant potential of hot water extracts of mulberry leaves (Mulberry tea) from *Morus alba* species. Albino mice were divided into 5 groups with 5 mice in each group. Diabetes was induced in mice by injecting D-galactose. Metformin (a synthetic drug) was used to compare results of natural and synthetic anti-ageing drugs. Mice were fed orally with mulberry leaves extracts with two different concentrations (120mg/kg and 180mg/kg). The concentrations of natural anti-oxidant enzymes, SOD, CAT and GSH were evaluated and found to be relatively increased in the mice fed with mulberry leaves extracts, indicating that ageing is being controlled by mulberry tea. Moreover, weights and diabetes of mice were also comparatively reduced in mulberry tea fed group as compared to the model group. Altogether, these results have shown that the hot water extract of mulberry leaves possess anti-ageing as well as anti-oxidant potential.

### Keywords

Oxidative stress, Anti-oxidants, *Morus alba*, Anti-ageing, Diabetes