

## ABSTRACT

Diabetes mellitus is a chronic disease marked by the elevated blood sugar level. This disease causes severe complications in the body such as damage to liver, kidney, pancreatic beta cells and nerves, delayed wound healing, affect vision, hearing and causes heart problems. Natural products have been used for centuries to treat diabetes. In this study, diabetes in Swiss albino mice was induced by intraperitoneal injection (170 mg/Kg) of alloxan monohydrate. After successful induction of diabetes in mice, various natural products (sericin, *Ginkgo biloba* and *Mentha spicata*) and their combinations were given to them (180 mg/Kg) for 21 days to treat diabetes. The individual antidiabetic effects of Sericin, *Ginkgo biloba*, and *Mentha spicata*, along with their mixtures were monitored by checking the mice fasting blood glucose level at day 0, 7, 14 and 21. Mice body weight was monitored twice a week to determine their health. Histological analysis showed the recovery of liver, kidney and pancreatic beta cells in the treatment groups. Blood serum was used to determine liver function tests (bilirubin, alkaline phosphatase, alanine transaminase and aspartate transaminase) and kidney function tests (creatinine and urea). It is concluded from this study that all natural products have antidiabetic effect individually but when used in combinations in equal proportion, early recovery was observed even at low dose. Furthermore, the best result was observed against the combined sericin+*Ginkgo biloba*+*Mentha spicata* treatment group.