

AIMS AND OBJECTIVES

AIM:

To evaluate the effects of *T. terrestris* and *P. marsupium* extracts on diabetic complications in nicotinamide-streptozotocin induced diabetic rats

OBJECTIVES:

Primary objectives:

1) To re-ascertain the antidiabetic properties of the chosen plant extracts using animal models.

a) *T.terrestris*

b) *P.marsupium*

2) To study the effects of these plants in prevention and reversion of long-term complications of diabetes

3) To explore the anti-inflammatory potential of these plants as the mechanism of action in prevention and reversion of the diabetic complications by the estimation of IL-6 and IL-10 in blood and kidney homogenate.

4) To further demonstrate the effects by the histopathological studies of the affected organs.

Secondary objectives:

1) Estimation of *in vitro* α -glucosidase inhibitory activity, total phenolic content estimation and total free radical scavenging property of aqueous extracts of *T.terrestris* and *P.marsupium*

2) To study the effects of these plants on diabetes induced cognitive dysfunction in animal models.