

ABSTRACT

Objective-

Anti-diabetic activity of stem bark of *Berberis aristata* D.C. in alloxan induced diabetic rats.

Material and methods-

Albino rats were divided into 5 groups. n=5 named as a, b, c, d and e. Group a and b served as normal and diabetic group. C is served as standard group and received standard antidiabetic drug Glibenclamide (5 mg/kg) group d and e served as treated group and received ethanolic extract of *B. aristata* in the dose of (14.85 and 34.66 mg/kg b.w.). Blood glucose and other parameter except liver glycogen and body weight were estimated by the commercial kit (Span diagnostic Pvt. Ltd, Surat). The effect of the ethanol extract of stem bark of *B. aristata* and Glibenclamide on the level of serum glucose serum cholesterol, serum protein, total lipids, liver glycogen and body weight were compared in alloxan induced diabetic rats. The different extracts of stem bark of *B. aristata* were tested for its anti- diabetic activity using glucose tolerance test in fasted rats.

Result- The results showed all the two doses of *B. aristata* and Glibenclamide produced a significant reduction in the level of serum glucose, serum cholesterol, serum protein, serum total lipids, serum urea, liver glycogen and body weight relative to the control group.

Conclusion- *B. aristata* has a significant anti-diabetic activity. The ethanol extract of *B. aristata* is very promising to develop standardized phytomedicine for diabetes mellitus.

Key words- *Berberis aristata*, *Indian barberry*, *Daruharidra*, Alloxan induced diabetes, Glucose tolerance test.