

To Assess the Effect of *Berberis Aristata* in Lowering the Blood Glucose Level in Prediabetic Individuals: A Review

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ABSTRACT

Prediabetes is a stage in which the blood glucose levels are high but not high enough to be diagnosed as diabetes. *Berberis Aristata* is a spinous herb from the Burseraceae family. The active compound of this herb is berberine that is majorly determined in its stem and roots. This berberine has been recognised in recent researches for its antidiabetic properties and a potent in the modulation of glucose metabolism.

The review papers were sourced from PubMed and Google Scholar. This review focussed on studies evaluating the effect of berberine on lowering blood sugar levels, specifically Glycosylated Haemoglobin (HbA1c), Fasting Blood Sugar (FBS), and Postprandial Blood Sugar (PPBS), in prediabetic and diabetic individuals. A total of 15 studies were screened out of which 10 were selected for the present study. Only the studies with a minimum sample size of 70-100 prediabetic individuals and an intervention period of at least 12 weeks were

included. Papers examining the effects of berberine on health conditions other than diabetes or with an intervention period of less than 12 weeks were excluded.

These Randomised control trials demonstrated a significant decrease in HbA1c levels, fasting blood sugar, and postprandial sugar levels in the experimental group who were taking Berberine intervention in comparison to placebo. All the studies selected for the review concluded that *Berberis aristata* has a positive effect on blood glucose levels in prediabetic individuals.

The study provides a valuable insight on *Berberis Aristata* as a natural intervention for lowering the blood glucose levels in prediabetic individuals. The findings help in bridging the gap between traditional herbal medicine and modern diabetes management.

Keywords: Berberine, Fasting blood sugar, Glycosylated haemoglobin, Prediabetes

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