

Abstract

The abstract summarizes a mice investigation on the anti-diabetic benefits of *Salvia hispanica* L. (chia seed) extract. This study examined how the extract affected numerous diabetes-related markers in alloxan-induced mice models. Chia seeds are touted for their anti-diabetic qualities. The researchers divided the mice into control, diabetic, and chia seed extract-treated cohorts to test this. The mouse study found promising anti-diabetic effects from chia seed extract. It significantly reduced blood glucose levels in diabetic mice, suggesting hypoglycemic potential. The study found improved glycemic control while fasting and after meals, suggesting better blood glucose regulation. In animal models, chia seed extract improved insulin sensitivity. The extract's insulin sensitivity increase suggests that it may improve glucose utilization and diabetes treatment. The researchers also examined how the extract affected diabetes-related metrics like lipid profiles and inflammatory markers. The study found that mice given chia seed extract had decreased total cholesterol and triglycerides, suggesting lipid-lowering benefits. The extract also showed anti-inflammatory properties, which may help regulate diabetes-related inflammation. The research's histopathological diagrams reveal that chia seed extract benefits the pancreas, liver, and kidneys, which are affected by diabetes. The extract may preserve these vital organs, according to one study. In conclusion, the mice study suggests that chia seed extract treats diabetes. Chia seed extract promising natural diabetes treatment proven successful. This offers novel diabetic therapy and care.