Evaluation of the antidiabetic potential effect of a plant used in Algerian traditional medicine on alloxan diabetic rats

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In Algeria, herbal medicine is still widely sought by the population, with the use of medicinal plants based on recommendations from people. The aqueous extract of Lupinus albus, known in Algeria as the “Tramoussos” is used as antidiabetic. The phytochemical analysis showed that the seeds of Lupinus albus are very rich of flavonoids, tannins and anthocyanins, it also contains other principles in small quantities such as terpenes, sterols, saponosids and alkaloids. The existence of antihyperglycemic ingredients: Tannins and flavonoids, prompted us to verify this effect on Wistar albinos rats diabetics by intraperitoneal injection at a dose of 120 mg/dl of alloxan. The results obtained from the biological study, showed that the dose administered orally of the aqueous extract (200 mg/kg) for 15 days, involved a recovering of the body weights in treated diabetic rats compared to untreated diabetic ones, as well as a reduction of the fasting blood glucose, which would be caused by the presence of active antidiabetic ingredients: flavonoids and tannins. After sacrifice, the aqueous extract exerted a reduction effect in the glycemia, triglycerides and total cholesterol levels. This study revealed that the aqueous extract with an amount of 200 mg/kg could have an antihyperglycemic and hypolipemic effects.

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