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THE EVALUATION OF DNA DAMAGE IN RATS WİTH STREPTOZOTOCIN INDUCED DIABETES AND THE PROTECTIVE EFFECT OF SILIBININ ON DNA DAMAGE

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Highlights

- Diabetes caused DNA damage probably because of oxidative stress
- Silibinin decreased diabetic DNA damage to the level of the control group
- Silibinin may have a protective/repair effect against the formation of DNA damage

ABSTRACT

Free oxygen radicals increased in diabetes suggests that there might be increase in DNA damage. In this study, it was aimed to reveal possible DNA damage caused by diabetes and the possible protective effect of silibinin against DNA damage. Silibinin is the active component of *Silybum marianum* (L.) plant. Studies show that Silibinin is a powerful antioxidant and protective against free radicals. 56 male rats with streptozotocin-induced diabetes were treated with silibinin at different doses. DNA damage in control, diabetes and treatment groups was demonstrated by Comet assay. Statistical analysis of the Tail DNA Percentage parameter showed significant results. DNA damage was increased in diabetic rats, and was decreased in silibinin treatment groups. This suggests that silibinin is protective against the formation of DNA damage and may contribute to the repair of DNA damage.