



Diabetes mellitus is one among the major threats in the global health. Diabetes may influence male fertility as a result of spermatogenesis, penile erection or ejaculation failures. *Momordica charantia* Linn (Cucurbitaceae) is well known in folk medicine to control several disorders including diabetes. The current investigation attempts to evaluate the possible protective effect of *M. charantia* (MC) against diabetes-related sexual complications in male rats. Thirty male rats were distributed to five groups. The 1st: normal control group; the 2nd: diabetic control group; the 3rd, 4th and 5th: diabetic groups that were given glibenclamide at 10 mg/kg, MC at 250 and 500 mg/kg, respectively for 12 weeks. The blood levels of insulin, glucose, HbA1c, testosterone (TST) and gonadotropins were estimated. Epididymal sperm characteristics, testicular histopathology, lesion scoring and testicular antioxidants were also performed. Testicular mRNA expression of the apoptosis-related markers such as Bcl-2 and Bax were evaluated by real-time PCR. Furthermore, caspase-3 protein expression was immunohistochemically evaluated. MC treatment significantly reduced the serum glucose and HbA1c, while increased serum insulin, TST and gonadotropins levels. It induced a significant recovery of the testicular antioxidant enzymes, improved histopathological changes of the testes, and decreased the spermatogenic and ser-

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: Rehab F. Abdel-Rahman *Momordica charantia* extract protects against diabetes-related spermatogenic dysfunction in male rats; Webinar on Toxicology; October 30, 2020