

عنوان مقاله:

Examination of the immunohistochemical localization and gene expression by RT-PCR of the oxytocin receptor in diabetic and non-diabetic mouse testis

محل انتشار:

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خلاصه مقاله:

Objective(s): The aim of this study was to determine Oxytocin receptor (OTR) gene expression and localization in diabetic and non-diabetic mouse testes by RT-PCR and immunohistochemistry, respectively. **Materials and Methods:** In this study, ۱۸ male BALB/c mice (۸-۱۲ weeks old) were used and divided into three groups: diabetic, sham, and control. Streptozotocin (STZ) was applied to the diabetic group and sodium citrate was administered to the sham group in the same way, however, the control group was left untouched. The testicular tissues were removed on the thirtieth day of testing; the right testis tissues were passed through a routine histologic process and sections were stained with H&E and PAS staining techniques. The avidin-biotin-peroxidase method was applied to determine OTR immunoreactivity, while the left testis tissues were used for RT-PCR. **Results:** It was found that the body weight had decreased in the diabetic group and the diameter of the seminiferous tubules in the said group was shorter than those of the other groups. There were no obvious differences with regard to the histologic appearance between the groups. The immunohistochemical examination showed that the OTR immunoreactivity was strong in the control and sham groups but weak in the diabetic group, and the immunoreactivity was only seen in the Leydig cells. In addition, the OTR gene expression was lower in the diabetic group than in the other groups. **Conclusion:** We concluded that diabetes reduces the OTR expression in the testis. It is suggested that OTR protection should be researched in .diabetes for healthy reproduction and sexuality

کلمات کلیدی:

Diabetes, immunohistochemistry, Oxytocin receptor, RT-PCR, Testis

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