



## Oxidative Renal Damage in Rats Subjected to Ovarian Ischemia Reperfusion and Protective Effect of Tianeptine

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**SUMMARY.** Ischemia reperfusion (I/R) injury in an organ can also cause damage in other organs. The aim of this study was to research the effect of tianeptine on oxidative ovarian injury induced by I/R in rats, and on the complication of this damage on the kidney. Albino Wistar female rats were assigned into groups, control subjected to ovarian I/R (OIR), exposed to 25 mg/kg tianeptine + ovarian I/R (TOIR), sham operation + 25 mg/kg tianeptin (TSG) and sham operated (SHAM). MDA, MPO, TNF- $\alpha$  and IL-1 $\beta$  levels in OIR group were found to be significantly higher compared to the TOIR, TSG and SHAM groups, and the tGSH level was found to be lower. Histopathologically, dilated and congested blood vessel, edema, hemorrhage, and PNL infiltration were observed in the OIR group ovarian and kidney tissues. In the ovarian and kidney tissues of TOIR group, dilated and congested blood vessel was found. This information obtained suggests that tianeptine may be useful in the treatment of ovarian I/R injury and its complications on kidney.

**RESUMEN.** La lesión por isquemia-reperfusión (I/R) en un órgano también puede causar daño en otros órganos. El objetivo de este trabajo es investigar el efecto de la tianeptina sobre la lesión ovárica oxidativa inducida por I/R en ratas y sobre la complicación de este daño en el riñón. Las ratas hembra albino Wistar fueron asignadas en grupos, sometidas a I/R ovárica (OIR), expuestas a 25 mg/kg de tianeptina + IAR ovárica (TOIR), operación simulada + 25 mg/kg de tianepina (TSG) y operación simulada (SHAM). Se encontró que los niveles de MDA, MPO, TNF- $\alpha$  e IL-1 $\beta$  en el grupo OIR eran significativamente más altos en comparación con los grupos TOIR, TSG y SHAM, y se encontró que el nivel de tGSH era menor. Se observaron vasos sanguíneos histopatológicamente dilatados y congestionados, edema, hemorragia e infiltración de PNL en los tejidos ováricos y renales del grupo OIR. En los tejidos ováricos y renales del grupo TOIR se encontraron vasos sanguíneos dilatados y congestionados. La información obtenida sugiere que la tianeptina puede ser útil en el tratamiento de la lesión ovárica I/R y sus complicaciones en el riñón.

**KEY WORDS:** kidney, ovarian injury, rat, tianeptine.

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