MODULATORY EFFECT OF CARBACETAM ON THE GLUTATHIONE ANTIOXIDANT DEFENSE SYSTEM IN RATS OF DIFFERENT AGE GROUPS WITH SCOPOLAMINE-INDUCED NEURODEGENERATION

Dreznal Ye. P. Kmet T. I.
Bukovinian State Medical University

AIM

To evaluate carbacetam effects on glutathione system parameters in the hippocampus and kidneys of sexually mature and aged rats.

EXPERIMENTAL DESIGN

Male albino rats • Scopolamine 1 mg/kg i.p. for 27 days • Carbacetam 5 mg/kg for 14 days, starting on day 28.

MEASURED PARAMETERS

GSH • SH-groups • GPx • GR • G6PDH in hippocampal and renal tissues.

KEY RESULTS | CHANGE VS. UNTREATED SCOPOLAMINE GROUP

Reduced glutathione (GSH)







SH-GROUPS
+31.6%
Hippocampus • mature rats

SH-GROUPS
+39.1%
Kidneys • aged rats

GPx ACTIVITY
+34.5%
Hippocampus • both age groups

GPx ACTIVITY
+20.4%
Kidneys

CONCLUSION

Carbacetam improved several glutathione antioxidant defense parameters in the hippocampus and kidneys, supporting further investigation of its potential to mitigate oxidative imbalance across age groups.