Study the expression of BAX gene in cerebellum of experimental cholestatics male rats subsequent effect of treatment by neuroaid

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Abstract
Including liver diseases is cholestasis which is a consequence of disordered bile secretion causes an accumulation of poisonous bile in the body. If untreated, Cholestasis is causing damage to various organs. In this research was planned to investigate the effects of cholestasis and neuroaid (a drug which protects and repairs neurons) on the expression of Bax gene, in cerebellum of rat brain. Bax has role in apoptosis. A total number of 16 rats were divided into four groups as follows: Control group. BDL group, the rats which were just operated for bile duct ligation. BDL-neuroaid group, the rats which received both operation and neuroaid. Sham-neuroaid group, the rats which were not operated, but received the operation stress and neuroaid. Following the treatments, the rats were killed and their cerebellum were removed from their brain. RNA was extracted from the cerebellum cells, cDNA was synthesized, and Real time PCR was performed to measure the gene expression. According to the results, cholestasis causes increase in the expression of Bax gene; Neuroaid causes reduces in the expression Bax gene. Cholestasis changes is benefit to increase internal apoptosis pathway, however, neuroaid can approximately reduce this effect as well through making reduces Bax gene and as a result reduction of apoptosis, in cerebellum of rat brain.

Keywords: Apoptosis, BAX, Cerebellum, Cholestasis, Gene Expression Changes, Neuroaid, Rat(s).