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## Fish oil treatment during chronic maternal hypoxia improve cognition in rat offspring

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**Introduction & Aim:** Brain hypoxia is the common stressors during pregnancy is associated with fetal brain injury and delay in brain development. This effect can cause cognitive and behavioral disruption into later childhood. Fish consumption during pregnancy has positively effect on cognitive abilities. In this study, we studied the effect of fish oil treatment during chronic maternal hypoxia on cognitive task in rat offspring.

**Method:** Rats were divided into two groups including sham and hypoxic group. To create hypoxic condition, pregnant rats were kept in hypoxic box on DPC 6-21 with 10% oxygen and 90% nitrogen intensity for three hours. Sham group was injected with saline for the same period of time. At the end, passive avoidance memory was performed by shuttle box test.

**Result:** Results indicated that chronic maternal hypoxia reduced delay time ( $p<0.05$ ) and increased time spent in dark room ( $p<0.05$ ) in shuttle box test compared to the sham group.

**Conclusion:** According to our results, chronic hypoxia in pregnancy disrupts passive avoidance memory in rat offspring.

### Biography

Zohreh Ghotbeddin has completed PhD from Tarbiat Modares University, Iran. He is an Assistant Professor of Physiology in Shahid Chamran University of Ahvaz, Iran. He has published more than ten papers in reputed journals.

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