ABSTRACTS
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THE PROTECTIVE EFFECT OF GINGSENG AND GINGKO MIXTURE ON ACUTE HYPOXIC RATS.

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The purpose of this study was to investigate the protective effect of Gingseng and Gingko mixture on rats under acute decompression hypoxia and its possible mechanism. Adult SD rats were randomly divided one of three experimental groups: normal oxygen control (NC), acute decompression hypoxia (AH) and Gingseng and Gingko mixture add acute decompression hypoxia (GH). For the later two groups,rats were acutely exposed to simulated 8000m high altitude in a hypobaric chamber for 7h, water content, Na_, K_-ATPase activity, MDA and LA concentration, and SOD activity in cerebral tissue were measured. Ginseng and Gingko mixture administrated to rats orally for 7 days before decompression exposure. The other two groups were treated with the same volume water. The result of our experiments show that compared to NC group,cerebral water content was significantly increased in AH group, but it was significantly reduced in GH group.Na_, K_-ATPase activity in cerebral tissue in AH group was significantly reduced, while Ginseng and Gingko mixture decreased this reduction. LA.MDA level in AH group was significantly higher than that of NC group, but this increase was significantly reduced in GH group. SOD activity tended to drop, but it was not significantly at statistic. SOD activity of GH group is more higher than that of AH group. That indicate the Ginseng and Gingko mixture has significant protective effect for acute decompression hypoxia. Its mechanisms are related to the following factors: antagonist effect of Ginseng and Gingko mixture on oxygen-derived free radicals and membrane lipid peroxidation and improving energy metabolism of brain cells.