

Effect of Peruvian maca (*Lepidium meyenii*) and melatonin on testicular development of mice exposed to continuous hypobaric hypoxia Efecto de la Maca Peruana (*Lepidium meyenii*) y de la Melatonina Sobre el Desarrollo Testicular del Ratón Expuesto a Hipoxia

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Hypobaric hypoxia (HH) is a decisive factor in human health in populations that reside at high altitude levels. Low oxygen rate affects most tissues and organs, including the testis. In humans, hypoxia stimulates angiogenesis, testicular blood flow and increases intrascrotal temperature which determines negative effects on sperm production. Our study researched the effects of HH in mice testicle. Mice were housed in a hypobaric chamber with a setting at 4,200 m above sea level during three different periods of hypoxia (8.3, 16.6 and 24.9 days). Control groups were housed at normoxic conditions (500 m above sea level). Hypoxic mice were treated with melatonin, maca plant (*Lepidium meyenii*) and melatonin and maca combination. The aim of present study was to determine if maca consumption protects testis against harmful effects of hypoxia and to determine a possible synergistic effect between melatonin and maca administration. In this article we have demonstrated that hypoxia produces a co