

## **Physiological Effects of Eleuthero Extract in Experimental Animals**

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### **Title:**

“Physiological Effects of Ezo Ukogi\* (*Acanthopanax senticosus* Harms\*\*) Root Extract in Experimental Animals” \*Ezo Ukogi is Japanese name for Eleuthero. \*\* Scientific name, *Acanthopanax senticosus* is also called *Eleutherococcus senticosus*.

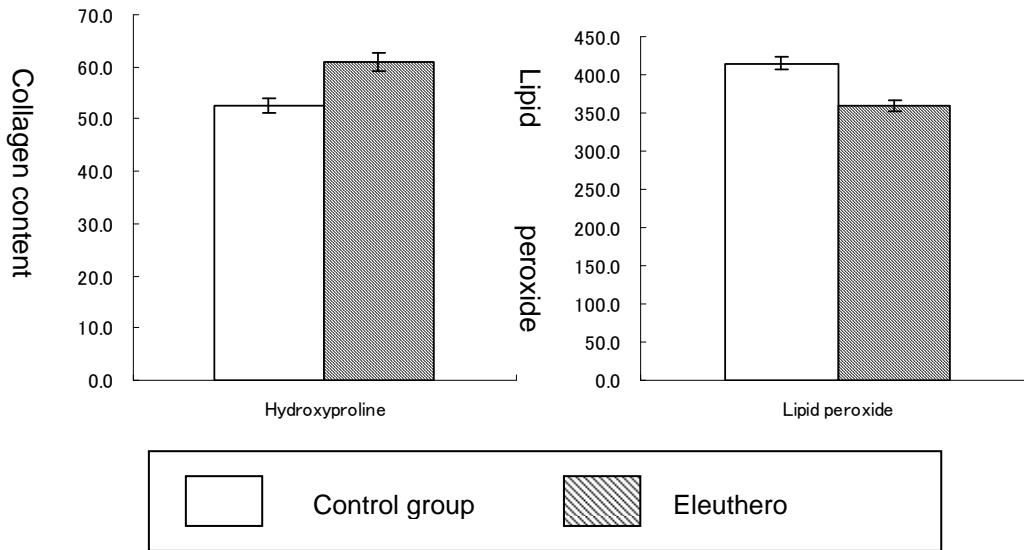
### **Summary:**

It is a study report from some animal tests to establish the physiological effects of Eleuthero Extract. From these studies, it was confirmed that Eleuthero Extract have suppressive effect on lipid peroxide formation in the skin, a protective effect against collagen loss, an improving effect on peripheral blood circulation, and anti-fatigue effect.

### **1. Suppressive effect on lipid peroxide formation in the skin and protective effect against collagen loss with administration of Eleuthero (Skin anti-aging effect)**

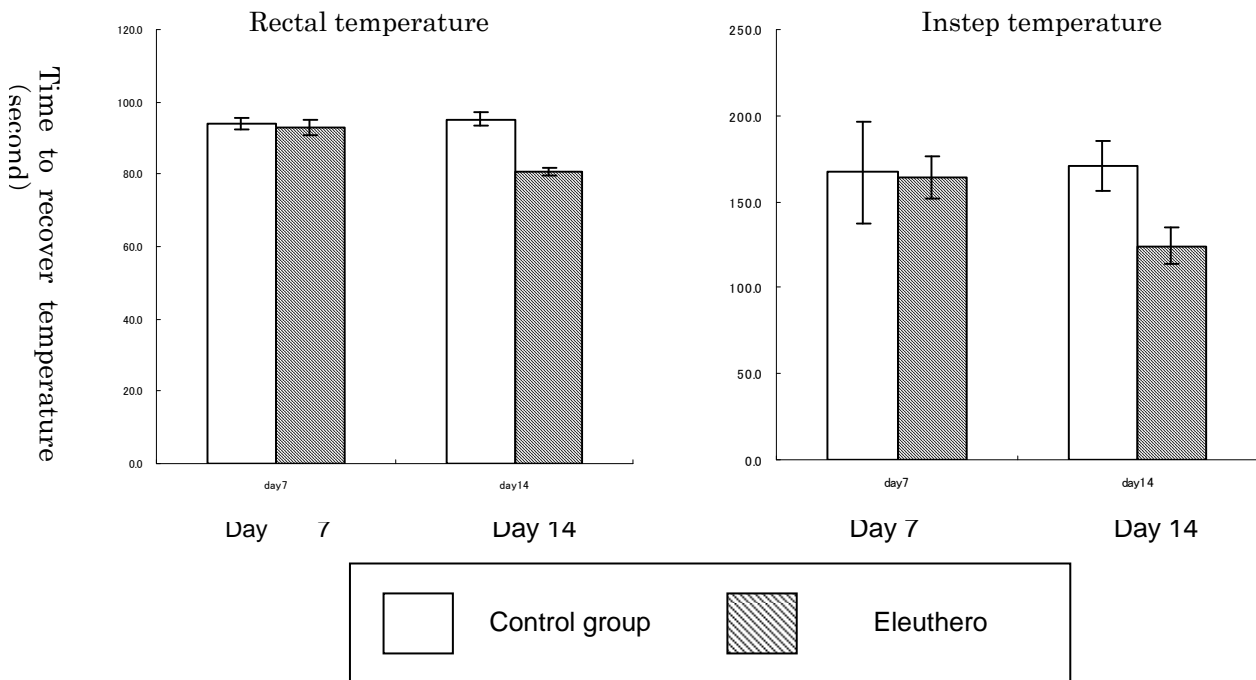
A vitamin C deficient diet was administered to two groups of guinea pigs over a 30 day period. The control group was fed a vitamin C deficient diet alone and the other group fed a Vitamin C deficient diet containing Eleuthero extract preparation. On day 28 of the feeding all the animals had an area on the back shaved and exposed to UV light. On day 30 a skin specimen was analysed for it's lipid peroxide content from the UV-exposed site as well as from a site not exposed to UV to determine the collagen content. The study concluded that the consumption of Eleuthero suppressed lipid peroxide formation and inhibited the decrease in collagen content compared to the control group.

(Note about lipid peroxidation from web: Lipid peroxidation is a well-defined mechanism of cellular damage in both animals and plants that occurs in vivo during aging and in certain disease states. Lipid peroxides are unstable markers of oxidative stress which decompose to form complex reactive by-products.)



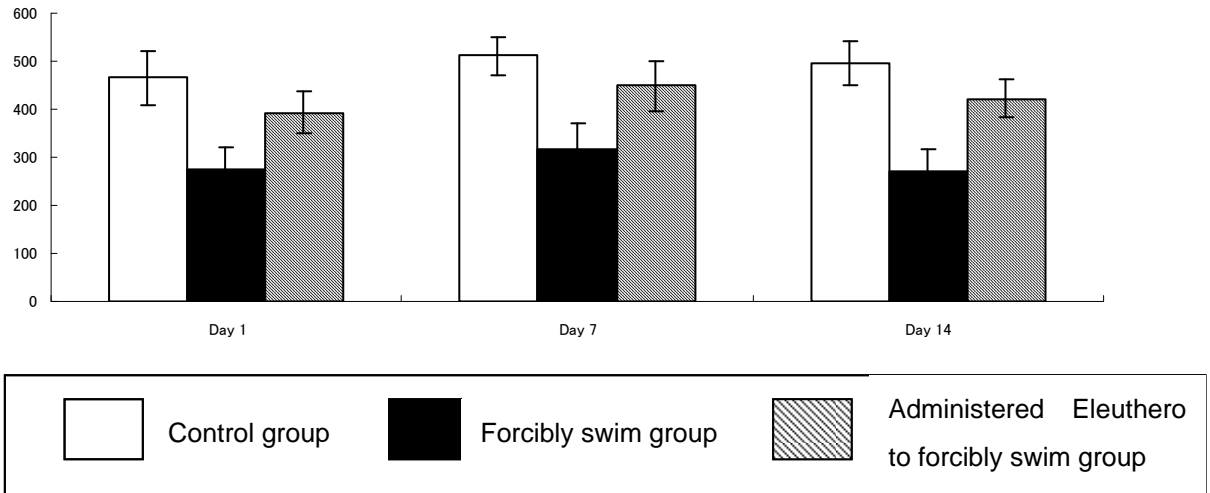
## 2. Improving effect on peripheral blood circulation

Measured the time to recover rat's temperature from condition of decreased temperature after being immersed in ice water for 15 minutes. After administering Eleuthero extract for 2 weeks, the recovery time of temperature was significantly reduced in comparison with the control group.



### 3. Anti-fatigue effects

Measured mice's swimming time after forcible swimming load. After administering Eleuthero extract for 2 weeks, it was found that the swimming time was extended significantly in comparison to the control group.



[Presented at a scientific meeting]

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