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## **Acupuncture Normalizes Dysfunction of Hypothalamic-Pituitary-Ovarian Axis**

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### **ABSTRACT**

This article summarizes the studies of the mechanism of electroacupuncture (EA) in the regulation of the abnormal function of hypothalamic pituitary-ovarian axis (HPOA) in our laboratory. Clinical observation showed that EA with the effective acupoints could cure some anovulatory patients in a highly effective rate and the experimental results suggested that EA might regulate the dysfunction of HPOA in several ways, which means EA could influence some gene expression of brain, thereby, normalizing secretion of some hormones, such as GnRH, LH and E2. The effects of EA might possess a relative specificity on acupoints.

**KEY WORDS:** Electroacupuncture,  $\beta$ -Endorphin, GnRH, LH, Estradiol, Estrogen receptor, Ovariectomized rat, Hypothalamic-pituitary-ovarian axis

### **CONCLUSION**

Our observations reveal that acupuncture may regulate the abnormal function of HPOA in many ways, which means that acupuncture may activate C-fos expression of brain, then a long term changes at molecular level would start, following the regulation of gene expression in FOS relative gene, such as ER mRNA and GnRH mRNA involved. On the other hand, EA may promote the activity of the body compensative mechanisms, then the levels of hormones, such as GnRH, LH, estrogen and so on would be normalized. The effect of acupuncture on regulating the function of HPOA may possess a relative specificity of acupoint. Moreover, our clinical and animal experimental results suggest that it is necessary for obtaining a satisfactory effect that proper stimulation should be about thirty minutes Q.D. for three days. This suggestion provides a successful consideration for clinical practice in curing the woman patients with dysfunction of sexual endocrine, such as primary ovarian dysfunction, climacteric syndrom, after-ovariectomy and polycystic ovarian disease etc.