Abstract

In this paper a mathematical model is developed based on current biological concepts of the lamprey GnRH-III involved in LH and FSH concentration. The physiologic role played by GnRH-III on gonadotropin secretion in mammalian species is controversial. Although GnRH-III is a weak GnRH agonist, early research in mammalian species suggested that GnRH-III can selectively stimulate the secretion of FSH without changing concentration of LH. Statistical analysis was carried out using power logistics, the diagnostic values of FSH, LH as well as LH/FSH ratio at different time points during GnRH test were evaluated using logistic processes.

References


**Index Terms**

Computer Science

Applied Mathematics

**Keywords**

Autoregressive Logistic processes

Luteinizing hormone

Follicle-stimulating hormone

Simulation

Stochastic model