ABSTRACT

Stress is a common state of response to a physical threat or psychological distress that generates a host of hormonal and chemical reactions and threatens to alter dynamic equilibrium or homeostasis in the body. In the present study, examinations were taken as the model of academic stress. The effect of examination stress, as a model of commonplace stressors, on the endocrine system was determined. We examined changes in weight, BMI and the secretion of serum cortisol, OH and PRL before and during examination in students studying in F.Sc./F.A, B.Sc./B.A (Hons.), M.Sc./M.A and M.Phil. Ten students in each group were selected at random. The blood samples were collected twice for comparison, 1 sample was taken two months prior to examination and 2 sample during examination. All the bleedings were done at 1500-1700 hrs to avoid the diurnal variations in circulating hormone concentrations. The age, height and weight of subjects were also recorded. The serum cortisol, OH and PRL concentrations were determined by using specific EJA systems. The results were drawn by comparison of weight, BMI and serum concentrations of cortisol, OH and PRL before and during examination within class, among different academic levels, age related changes and effect of academic stress on individuals at different developmental stages. The present study reveals that academic stress alters the normal pattern of the secretion of cortisol, OH and PRL in different groups of students. Furthermore, these studies show that all the students are quite vulnerable to academic stress, but the response varies from loss of the body weight to changes in the secretion of cortisol, OH and PRL. The endocrine response to academic stress appears to enable an individual to cope with the changed external environment.