

## **ANTIATHEROGENIC EFFECT OF *BOERHAVIA DIFFUSA* ROOT EXTRACT IN ALBINO MICE**

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Antiatherogenic effect of *Boerhavia diffusa* root extract has been evaluated in albino mice. Animals fed with cafeteria and atherogenic diets became obese, caused increase in body weight, increase in serum protein and lipid profiles. Administration of the root extract brought back the altered parameters to near normal.

### **INTRODUCTION**

Obesity is a major public health concern. It is a predisposing factor to noninsulin-dependent diabetes, hypertension, stroke, coronary artery diseases and cancers of the colon, rectum, prostate, breast, uterus and cervix. The simple cause is ingestion of more calories than required, the excess being stored in the body as fat. Some weight loss experts see obesity as based upon genetics and physiology rather than as a behavioral or psychological problem. About 8-30 different genes may influence obesity (Cooke and Bloom, 2006).

Lack of exercise also leads to this problem. Changing food habits or lifestyles and work cultures result in this threatening disease. (Snow *et al.*, 2005). Medical illnesses that increase obesity risk, include hypothyroidism, Cushing's syndrome and growth hormone deficiency. Certain medications (steroids, antipsychotics,) may cause weight gain. Mental illnesses may also increase obesity risk, specifically some eating disorders such as bulimia nervosa, binge eating disorder and compulsive overeating (Alfred and Fishman, 1999).

Plants have been important sources of medicine since the beginning of human civilization. They still constitute one of the major source of drugs in modern as well as traditional medicine throughout the world (Hota, 2007).

*Boerhavia diffusa* is a perennial diffuse herb, all parts of which have therapeutic potential. Its aqueous extract has hepatoprotective activity (Rawat *et al.*, 1997) In the present study, the antiatherogenic effect of this plant has been evaluated in albino mice.

### **MATERIALS AND METHODS**

#### **Preparation of extract**

*B. diffusa* root extract was prepared by shade drying 50g of the root, powdered and then extracted with distilled water for a known volume such that the concentration of the extract is 1 mg/ml.

Albino mice of both sexes weighing about 25-30g were, divided into 4 groups of 6 each. Group I served as control, group II fed with atherogenic and cafeteria diet, group III

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