**ABSTRACT**

Objective: To study the anti-obese effect of Cedrus deodara (C. deodara) wood in

cafeteria diet, atherogenic diet and monosodium glutamate induced obese rats.

Methods: Animals were fed cafeteria diet, atherogenic diet for 40 days and

monosodium glutamate induced obese rats. Ethanolic and acetone extracts of C.

deodara wood was administered in a dose of 100 and 200 mg/kg, p.o/day. The effect

of C. deodara wood on following parameters was recorded – body weight, food

intake, locomotor activity, body temperature (rectal temperature), various biochemical

parameters like serum glucose, total cholesterol, triglyceride, MDA level, organ and

fat pad weights and antioxidant enzyme like SOD, CAT and GSH levels. Results:

There was a significant reduction in body weight, food intake, organ and fat pad

weights, serum glucose, total cholesterol and serum triglyceride levels and increased

body temperature, locomotor activity after treatment with ethanolic and acetone

extracts of C. deodara wood in cafeteria diet, atherogenic diet and monosodium

glutamate induced obese rats. Extracts treated at a similar dose of (100 and 200

mg/kg) antioxidant enzyme like SOD, CAT, GSH levels increased and decreased

MDA level in cafeteria and atherogenic fed diet rats when compared to cafeteria,

atherogenic diet control group. Conclusion: C. deodara extracts exhibited anti-obese

effect in cafeteria diet, atherogenic diet and monosodium glutamate induced obese

rats.

Keywords: Cedrus deodara wood, obesity, cafeteria diet, atherogenic diet,

monosodium glutamate