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Effect of black tea brew of *Camellia sinensis* on oestrous cycle of rats

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ABSTRACT

This study examined the effects of black tea brew (BTB) of *Camellia sinensis* (L.) Kuntze (Family: Theaceae) on oestrous cycle using Sri Lankan high grown Dust gra No: 1 black tea and rats. Different doses of BTB (84 mg/ml, equivalent to 1.5 cups, 1 mg/ml, equivalent to 3 cups and 501 mg/ml, equivalent to 9 cups) or 2 ml of water (contr were orally administered for 31 consecutive days and the oestrous cycle was monitor daily by vaginal smearing. The results showed that none of the doses of BTB significan ($P > 0.05$) altered the percentage of occurrence of different stages of the oestrous cycle a its duration. It is concluded that daily chronic administration of even high dose of B (equivalent to 9 cups) dose not disrupt the oestrous cycle of rats.

Key words: *Camellia sinensis*; black tea; oestrous cycle; menstrual cycle

INTRODUCTION

Tea which is manufactured from the topmost immature leaves and the bud of *Camel sinensis* (L.) O. Kuntze (Family Theaceae) plant is currently the second most consum beverage of the world (Modder and Amarakoon, 2002). Based on the method manufacturing process there are three main types of teas: black (fully aerated or ferment green (unaerated or unfermented) and oolong (partially aerated or semi fermented). these, black tea accounts for about 78% of the global tea consumption (Anonymous, 200

A typically black tea brew (BTB) contains 0.35% tea solids in water (Modder a Amarakoon, 2002). Upto 40 % of the solids extracted to water are flavonoids (catechi theaflavins, thearubigins, flavonols) and infact tea is one of the richest sources of natu flavonoids (Modder and Amarakoon, 2002). BTB also contains appreciable amounts alkaloid, caffeine and amino acid, theanine (Balentine *et al.*, 1997; Modder and Amarako 2002).Generally, coffee and tea are the main sources of caffeine for adults (Fenster *et* 1999). Most of the known bioactivities of black tea are linked with these three phytochemi constituents (Modder and Amarakoon, 2002).

Consumption of caffeine is known to induce disturbances in the menstrual cycle in wom (Fenster et al., 1999): shortens the duration of menstrual cycle and menstruation. Furth