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In vitro anticlotting activity of Sri Lankan high grown black tea (*Camellia sinensis* L. O. Kuntze)

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ABSTRACT

This study examined the blood anticlotting potential of Sri Lankan black tea using high grown Dust No 1, BOPF and BOP grades and citrated shed goat blood. Different concentrations of these three grades of tea (0, 0.125, 0.25, 0.625, 1.25, 2.5 mg/ml) were made in isotonic saline (0.9% NaCl, w/v) using freeze dried tea samples. The results showed that the highest dose of all tea grades significantly ($P < 0.05$) prolonged the calcium-induced *in vitro* clotting time upto 24 h (the longest time investigated). A similar anticlotting activity was also evident with different concentrations of decaffeinated Dust No 1 and BOPF samples (decaffeinated BOP not investigated). It is concluded that Sri Lankan black tea possess strong blood anticoagulant activity at least, *in vitro*.

Key Words: *Camellia sinensis*, Sri Lankan black tea, anticlotting, blood clotting, BOP, BOPF, Dust No: 1

INTRODUCTION

Tea, which is made from tender shoots of *Camellia sinensis* L. O. Kuntze (Family: Theaceae) plant is currently the most consumed beverage in the world besides water (Modder and Amarakoon, 2002). Based on the method of processing there are three major types of teas: black (fully aerated), green (un aerated) and oolong (partially aerated). Of these, black tea accounts for about 78% of global tea consumption (Anon, 2002).

The ancients believed that tea has many health benefits. In recent times scientists have undertaken a considerable amount of scientific research and confirmed many of these beneficial effects. The health benefits shown so far, especially of green and black tea, include antioxidative, antiinflammatory, anticarcinogenic, antiangiogenic, antiarteriosclerotic, antidiabetic, antiobesitic, antiaging antibacterial, antiviral, hypocholesterolaemic, anticlotting and promotion of immune function (Dufresne and