

**Free radical scavenging activity of selected coffee bean variety.**

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**ABSTRACT**

Antioxidant properties elicited by plant species have full range of perspective application in human health care. In the last years, interest in the antioxidant activity of plant extracts, of isolated substances from plants, has grown, due the fact that free radicals have been related to some diseases, as well as to the aging process. Coffee is a brewed beverage with a dark, acidic flavor prepared from the roasted seeds of the coffee plant, coffee Arabica. It is the highly regarded species of *C. robusta*. The aim of the study was to investigate the free radical scavenging activity of two selected varieties of *C. arabica* namely special A and kumbakonam (local brand). Coffee brews (1g/100 ml of distilled water) were prepared from commercial coffee beans of these two selected varieties. Preliminary phytochemical analysis was done based on standard methods. Total phenols and total flavonoids were also estimated. Free radical scavenging capacity was determined using 4 invitro models namely, DPPH radical, hydroxyl radical, superoxide radical and nitric oxide radical scavenging activity. The total reducing power was also determined. Preliminary analysis shows the presence of tannins, cardiac glycosides, sugars, alkaloids and flavonoids in both the varieties. From the results, it was evident that varieties, special A and kumbakonam have radical scavenging activity. Hence it may be concluded that coffee intake can promote anti-oxidant levels. Further studies are required to isolate and characteristic the active component which is responsible for this activity.