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Phytochemical Screening and Antioxidant activity of *Trichosanthes cucumerina, Momordica charantia var muricata and Luffa acutangula*

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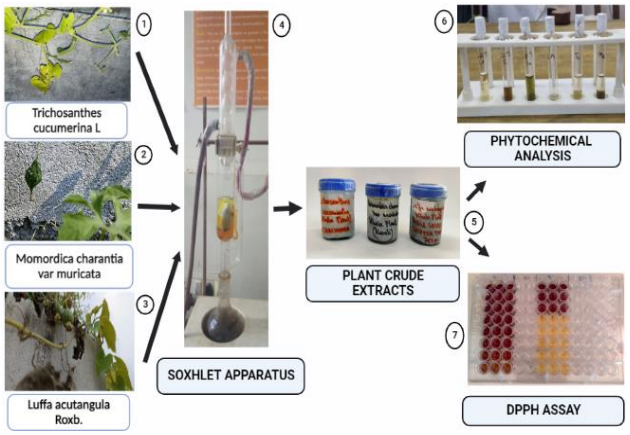
INTRODUCTION

- To scavenge free radicals and reduce oxidative damage, antioxidant supplements or foods with high antioxidant content are required.
- Cucurbitaceae, the family of highly diversified form of plant species often called gourd family.
- The potential of antioxidants to promote health benefits and food stability has led to an increased interest in the interaction between them. Because of their powerful antioxidant properties, the majority of vegetables from the cucubitaceae family have a rich chemical makeup.

OBJECTIVES

The aim of this study was to evaluate the phytochemical & antioxidant activity of *Trichosanthes cucumerina, Luffa acutangula, Momordica charantia var muricata* ethanolic whole plant extracts in order to find possible sources for future novel antioxidants.

MATERIALS AND METHODS



1,2,3 represents the tested plants used in this analysis, **4** represents the method used for the plant extraction, **5** represents the ethanolic crude extracts used for the further experimentation of Phytochemical screening (Harborne JB *et al* 1984, Harborne AJ *et al* 1998) & DPPH assay (Koleva II *et al* 2002) **6,7** respectively.

RESULTS

Table 1. Showing the phytochemical analysis results for the TC, LA & MCM whole plants.

Name of Phytochemical	Name of Chemical Tests	TC	LA	MCM
Alkaloid	Mayer's Reagent Test	+	–	+
Glycosides	Keller-Killiani Test	+	–	–
Phenols	Ferric chloride test	+	+	+
Proteins	Xanthoprotic test	+	–	+
Saponins	Froth test	–	+	+
Steroids	Liebermann Burchard test	+	+	+

+: Present; **-:** Absent; **TC:** *Trichosanthes cucumerina*, **LA:** *Luffa Acutangula*; **MCM:** *Momordica charantia var muricata*

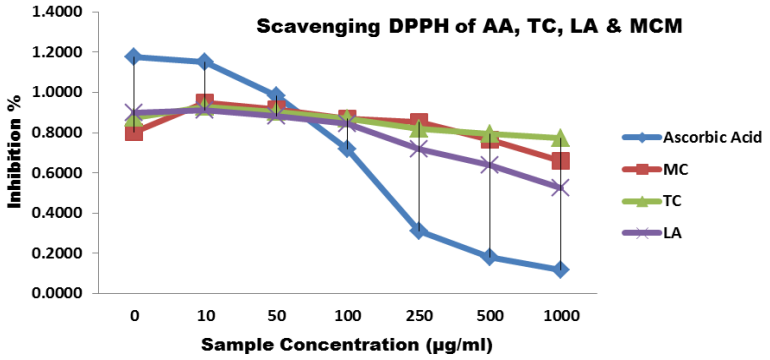


Figure 1. DPPH radical scavenging activity of AA, TC, LA & MCM. Data are presented as Mean±SD, n=3 experiments.

CONCLUSIONS

These plant based antioxidants are thought to work more biologically than synthetic ones. The results of this study indicated that the whole plants of *TC, LA & MCM* are good sources of functional ingredients which exert significant antioxidant activity on comparing with standard ascorbic acid.

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