

# ABSTRACT

*Mimusops elengi* is an ever green ornamental plant found in gardens. It is famous for its fragrant flowers and is frequently used in medicine, the bark and fruit are astringent in nature. Different parts of the plant mainly contain saponins, terpenes, reducing sugars, alkaloids and tannins.

The present research work consist of two parts. In part (A) extracts of leaves, bark and fruit were soaked in acetone-water (70:30) and treated with different solvents. The ethyl acetate fractions and n-butanol fractions of bark, fruit and leaves were obtained and performed different chemical tests for the detection of tannins. Paper chromatography and thin layer chromatography showed that tannins were present in fruit and bark.

Fruit and bark extracts were subjected to column chromatography and different fractions were obtained and performed different chemical tests which showed that bark contains both hydrolyzable and condensed tannins. Hydrolyzable tannins contained gallic acid in their nucleus, ellagi tannins are absent. The presence of gallic acid was indicated by base hydrolysis. The analysis of fruit extracts confirmed the presence of condensed tannins which can be correlated with the astringency of fruit. Total amount of condensed tannins was determined by precipitation through  $K_2HPO_4$ .

In part (B), the antioxidant activity of tannins was determined by thiocyanate method. The absorbance of the colored solution was noted and plotted the graph between absorbance and time. It was found that tannins were effected as antioxidants. The antifungal activity of tannins was also determined by agar diffusion method. Antifungal activity of a sample is proportional to the diameter of the zone. It was noted that antifungal activity is more in fruit and bark.