SUMMARY OF THE UGC SPONSORED MINOR RESEARCH PROJECT ENTITLED EVALUATION OF PHYTOCHEMICAL PROFILE, ANTINFLAMMATORY AND ANTIOXIDANT ACTIVITY IN TRADITIONAL PLANTS USED IN FOLK MEDICINE.

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- Various medicinal plants were screened for phytochemical profiling, Antioxidant activities and anti-inflammatory activities.
- Most of the plants were rich were rich in phytochemicals such as phenolics, flavonoids, tannins, terpenes, alkaloids etc
- The plants rich in phenolics were also rich in antioxidant activity.
- The antioxidant activity and anti-inflammatory activities were highly correlating.
- Those plants can be used for further isolation and purification of active principle responsible for above activities.

Phytochemicals are secondary metabolites of plants which are non-nutritive chemicals that have protective or disease preventive properties. It is well known that plants produce these metabolites to protect itself but recent research demonstrates that many phytochemicals can protect humans against diseases. Acetone extracts of the three medicinal plants Sida cardifolia, Phyllanthus amarus and Adathoda vasica were assessed for phytochemical components qualitatively and quantitatively and antioxidant activity. The results revealed that all the three contained alkaloids, carbohydrates, flavonoids, tannins, anthocyanins, steroids and phenols. Saponins were absent in all the three extracts. Sida cardifolia with 1.53mg and 7.09mg GA equivalent/g of extract powder showed maximum amount of Phenolics and flavonoids. The total sugars and proanthocyanidins was maximum in Phyllanthus amarus with 8.45ug glucose equivalent/g of extract powder and 10.84mg GA equivalent/g of extract powder. Tannin content was found to be high in Adathoda vasica with 11.07mg GA equivalent/g of extract powder. Sida cardifolia acetone leaf extract showed the highest reducing power activity, Free radical scavenging potential and inhibition of lipid peroxidation. The antioxidant activity and anti-inflammatory activities were highly correlating.