SUMMARY AND CONCLUSION

The present study, the *Diplocyclos palmatus* leaves, *Abutilon indicum* stem and *Cassia occidentalis* whole plant were collected and authenticated. After the authentication were subjected to physicochemical evaluation. The plants are subjected to size reduction to get coarse powder (40#) and subjected to quality control tests with various parameters such as physical tests, extractive values, ash values, fluorescence analysis, identification of major chemical constituents and its estimation were carried out as per pharmacopoeia/literature.

The standardized powders were subjected to extraction with various solvents such as chloroform, alcohol and aqueous by successive hot continuous soxhlet method. Each extract was concentrated by distilling the solvent and then evaporated to dryness on water bath. The concentrated extracts stored carefully for standardization, phytochemical and anticonvulsant activity.

As per the phytochemical investigation, alkaloids, glycosides, steroids, flavonoids, terpenoids and carbohydrates, amino acids, proteins and tannins were found to be present in the various extracts of *Diplocyclos palmatus* leaves, *Abutilon indicum* stem and *Cassia occidentalis* whole plant After the phytochemical investigation, the extracts were subjected to TLC. HPTLC and GCMS showed the presence of chemical constituents. The extracts were screened for anticonvulsant activity by MES and PTZ induced convulsion respectively.

Many plants have been used for the treatment of various CNS disorders in Indian system of medicine and in other ancient systems of the world, out of these only a few have been evaluated as per modern system of medicine. From many such plants only extracts have been prepared and their usefulness evaluated in experimental animals (Kar et al 2014). In present study the, three Ayurvedic medicinal plants parts such as *Diplocyclos palmatus* leaves, *Abutilon indicum* stem and *Cassia occidentalis* whole plant were selected for designing the formulation to exploit their stability study using different parameters (table26).

It has often been stated that antiepileptic drugs that block MES-induced tonic extension act by blocking voltage dependent Na+ channels. In the present study formulation showed significant results in MES model. PTZ seizure threshold is well
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acknowledged animal model used for screening anticonvulsant effects of various chemical entities, represent the petitmal type of seizures and this has been primarily utilized as animal model to evaluate the anti epileptic drugs and is known to block the post synaptic GABA receptor mediated cl- conductance and thus produce seizures. GABA is an important endogenous inhibitory neurotransmitter widely distributed throughout the CNS. As far as the GABA is concerned, the following facts support its involvement (Balamurugan et al 2009, Kulkarni et al 2008, Gautam et al 2011)

The acute toxicity of Diplocyclos palmatus leaves, Abutilon indicum stem and Cassia occidentalis whole plant extract was determined by the method of Reed and Meunch on wistar albino rats of either sex weighing 185-210g. Animals were divided into 7 groups, each containing five animals. The rats were fasted for 18 hours, with water and libitum. We found no significant changes in average body weight of animals, up to tested oral dose of 3000 mg/kg, during acute toxicity study

After the acute toxicity study, the various extracts were screened indivual for the anti-convulsant activity by using MES and PTZ-induced convulsion in albino rats, lead to the conclusion that the chloroform, alcoholic and aqueous extract of Diplocyclos palmatus leaves, Abutilon indicum stem and Cassia occidentalis whole plant was showed significant anticonvulsant activity when compared to standard phenytoin and diazepam, results shown in table 20 to 25 respectively.

PTZ induced convulsion showed 50% of protection, and also developed the three medicinal plants parts for chloroform extract of Diplocyclous palmatus (Shivling) leaves and Abutilon indicum (Atibola) stem and Cassia occidentalis (Neegro coffee) whole plant were selected for designing the possible modern formulations to exploit their anticonvulsant activity.

Formulations are the best media to convey the medicament to bodily organs it is also proved practiced to formulate the medicament into the formulation so as to perceive the intended result in an effective manner. Stability study reveals that, suspension did not exhibit any change in colour, pHvalues, sedimentation volume of formulation were particle flocculated no caking was observed during this period and showed good redispersibility, was relatively constant, indicating that the suspension were easily redispersibity to yield
uniform suspension even after storage for 90 days at 8°C and at 45°C was shown in table 26.

From this we can conclude that the liquid dosage form like liquid oral and suspension having good stability on storage. These combined herbal dosage forms could be suitable for anticonvulsant activity. However, this claim demands through investigation in other models for anticonvulsant activity.