



## PHYTOCHEMICALS STUDY OF CONOCARPUS LANCIFOLIUS FRUIT EXTRACT IN VARIOUS SOLVENTS

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Article Received on 06/08/2024

Article Revised on 27/08/2024

Article Accepted on 16/09/2024

### ABSTRACT

The Present study of *Conocarpus lancifolius* Fruit extract in various solvent as phytochemicals. For this study known method is used. It shows number of phytochemicals present in fruit of *Conocarpus lancifolius*. The results of the present study provide scientific information for the popular use of *Conocarpus lancifolius* Fruit extract.

**KEYWORDS:** *Conocarpus lancifolius* Fruit, phytochemicals.

### INTRODUCTION

Different medical plants have been used for years in daily life to treat disease all over the world. Plants play a vital role in human and animal life as source of food and medicine. Medicinal plants play important role in primary health care. Major part of potential of medicinal plants is yet to be discovered in health care. Many plant extract of higher plants show antimicrobial activity, but there are many medicinal plants whose activities yet to be discover. Many infectious diseases have been treated with known herbal remedies or single plants throughout the history. The increasing failure of chemotherapeutics and increasing antibiotic resistance shown by pathogenic microbial infectious agent has led to screening of several medicinal plants for their potential antimicrobial activity.<sup>[1,2]</sup> Antibiotics are sometimes associated with adverse effects including hypersensitivity, immune-suppression and allergic reactions.<sup>[3]</sup> The researcher evaluate the phytochemical and antimicrobial activity of twelve medicinal plants of ethanolic extract of plants were evaluated using well diffusion method against pathogens.<sup>[4]</sup> *Conocarpus erectus* is an evergreen shrub found on the shorelines in tropical and subtropical regions of the world, throughout the America, tropical Africa, West Indies and Also in india. The history of utilization of plants to various conditions is extremely old. The foremost records discovered demonstrate that plants have been utilized in Mesopotamia and Egypt thousands of years ago. Various phytochemicals have been secluded from various plants which are presently being recommended via medical experts all around a globe<sup>[5,6]</sup> The researcher have been investigated the Evaluation Antioxidant and Antibacterial Activities of n-Butanol Fraction of *Conocarpus Erectus* L. Leaves

Extract<sup>[7]</sup> The author have been studied the Isolation of umbelliferone from leaves extract of *Conocarpus erectus* L. cultivated in Iraq also investigate the phytoconstituents in the leaves of *C.erectus*.<sup>[8]</sup> Amna K. Faraj et.al have been studied the cytotoxic effect of flavonoids extracted from leaves extract of *Conocarpus erectus* L.<sup>[9]</sup> Near about 60% medicine against malignant are derived from plants. Because of the nearness of various phytochemicals plants are medicinally important which they produce for the fulfillment of their own needs. For example for the protection from predators they produce alkaloids and each phytochemical has its own significance against the treatment of various disease.<sup>[10]</sup> Dayane K.D. Nascimento et.al have been studied the Phytochemical Screening and Acute Toxicity of Aqueous Extract of Leaves of *Conocarpus erectus* Linnaeus in Swiss Albino Mice and concluded that the leaves extract were flavonoids, saponins and tannins are present. The extract was classified as belonging to category 5 with a low toxicity. The LD50 of the aqueous extracts *Conocarpus erectus* L. was estimated at 2,000 mg/ kg body weight.<sup>[11]</sup>

After review of literature survey the detail phytochemical study of *Conocarpus lancifolius* Fruit under identical set of experimental condition is still lacking. It was thought of interest to study the phytochemical presents in *Conocarpus lancifolius* fruit under suitable condition.

### MATERIAL AND METHODS

The *Conocarpus lancifolius* Fruit was collected from medicinal plant Garden of our college located in Raver, dist. Jalgaon(M.S, India. All the reagents used for preparation of following media / chemicals were A.R.

grade and were manufactured by Hi-media, Mumbai and Qualigens, India.

## METHOD

Phytochemicals are investigated by qualitative analysis to the previously reported methods.<sup>[12-18]</sup>

## RESULTS AND DISCUSSION

**Table: Phytochemical screening of Conocarpus lancifolius Fruit in various solvent.**

Phyto chemicals	Water	Methyl alcohol	Ethyl alcohol	PET Ether
Phenolic compound	+	+	+	-
Alkaloids	-	+	+	-
Flavonoides	-	-	-	+
Carbohydrates	-	-	-	+
Reducing sugar	-	-	-	-
Amino acid	-	-	-	-
Phytosterol	-	+	-	+
Protein	+	-	-	-
Anthocyanin	+	-	-	-
Glycoside	+	+	+	-
Saponin	+	-	+	-
Coumarin	-	+	-	-
Diterpines	+	-	+	-
Tannin	+	-	-	-

The result of phytochemical screening of Conocarpus lancifolius fruit in various solvents shows in table. Extract of water shows presence of phenolic compounds, Protein, anthocyanin, glycoside, saponin, diterpines and Tannin. Extract of methyl alcohol shows presence of phenolic compounds, alkaloids, phytosterol, glycoside and coumarin. Extract of Ethyl alcohol shows presence of phenolic compounds, alkaloids, glycoside, Saponin and Diterpines. Extract of PET ether shows presence of flavonoides, carbohydrate and Phytosterol.

## CONCLUSION

Water extract shows more number of phytochemicals present than other solvent extract.

## ACKNOWLEDGEMENT

The Authors is thankful to Prin. Dr. A.G. Patil, Shri.V.S. naik College, Raver for kindly cooperation.

## REFERENCES

- Colombo ML, Bosisio E. Pharmacological activities of *Chelidonium majus* L (Papaveraceae). *Pharmacol Res.*, 1996; 33: 127-134.
- Iwu MW, Duncan AR, Okunji CO. New antimicrobials of plant origin. In: Janick J. ed. *Perspectives on New Crops and New Uses*. Alexandria, VA: ASHS Press, 1999; 457-462.
- Ahmad I, Mehmood Z, Mohammad F. *J Ethnopharmacol*, 1998; 62: 183-193.
- Preeti Gauniyal, Uday Vir Singh Teotia, *Int. J. Pharm. Med. Res.*, 2014; 2(1): 21- 27.
- Redha A., Al-Mansour N., Suleman P., Afzal M., and Al-Hasan R., Leaf traits and histochemistry of trichomes of *Conocarpus lancifolius* a *Combretaceae* in Semi-Arid Conditions, *American Journal of Plant Science*, 2011; 2: 165-174.
- Saad TM., Farheen A., Nureen Z., Zeeshan M., Maria F.Ayesha J., *Antibacterial and Antifungal Activity of Conocarpus Lancifolius* engl. (*Combretaceae*), *J AppPharm.*, 2014; 6(2): 153-155.
- Rawa A. Hussein, *Int. J. Pharm. Med. Res.*, 2016; 4(6): 394-400.
- Tahany Amir Tawfeeq, Ghaith Ali Jasim, Abdulmutalib A. Nasser, *Al Mustansiriyah Journal of Pharmaceutical Sciences*, 2020; 20(4).
- Amna K. Faraj\* and Muayad S. Shawkat, *Plant Archives*, 2020; 20(1): 3476-3480.
- Wang, G., Tang, W., and Bidigare, R. R. Terpenoids as therapeutic drugs and pharmaceutical agents. In "Natural products", 2005; 197-227. Springer
- Dayane K.D. Nascimento, Ivone A. de Souza, Antônio F.M. de Oliveira, Mariana O. Barbosa, Marllon A.N. SANTANA, Daniel F. Pereira Júnior, Eduardo C. Lira and Jeymesson R.C. Vieira, *Anais da Academia Brasileira de Ciências*, 2016; 88(3): 1431-1437.
- Singh P, Khandelwal P, Hara N, Asai T, Fujimoto Y., *Indian J Chem.*, 2008; 47B: 1865-1870.
- Harborne, J.B. *Methods of plant analysis*. In *Phytochemical methods*. London: Chapman and Hall., 1973; 1-32.
- Verma KS, Jain AK, Gupta SR. Structure of undulatin: New iridoid glycosides from *Tecomella undulata*. *Planta Med.*, 1986; 52: 359-362.
- Joshi KC, Singh P and Pardasani RT. Quinones and other constituents from the roots of *Tecomella undulata*. *Planta Med.*, 1977; 31: 14-16.
- Taneja SC, Bhatnagar RP and Jiwari HP. Chemical constituents of flowers of *Tecomella undulata*. *Indian J Chem.*, 1975; 13: 427-428.

17. Randhawa GS, Mukhopadhyay A. Floriculture in India. Allied Publication (p) Ltd:Mumbai, 2004; 225-226.
18. Khare CP., Society of new age herbals: New Delhi (India), 2004; 67.