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**Spectroscopy analysis of the Siddha drug
Nilakadambu Chooranam**

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Abstract

According to Siddha System of medicine Herbs are always having highly potent medicinal value without causing any adverse effects. NILAKADAMBU CHOORANAM is one of The best herbal formulation indicated in Siddha literatures for the management of menstrual disorders. Though this formulation is being used in clinical practice, scientific documentation to standardize this drug is essential nowadays. So, the Siddha formulation. NILAKADAMBU CHOORANAM is subjected into characterization using FTIR. The results confirmed that the presence of functional groups Alcohols, Phenols, Alkanes, Carboxylic acids, Primary amines, Fluoride, CH₃, Nitro compounds, Aromatics, Bromide, Iodide. These findings will help for further research in. NILAKADAMBU CHOORANAM.

Keywords: Siddha drug, herbal drug, Chooranam, Nilakadambu Chooranam, FTIR, Spectroscopy, Standardization.

Introduction

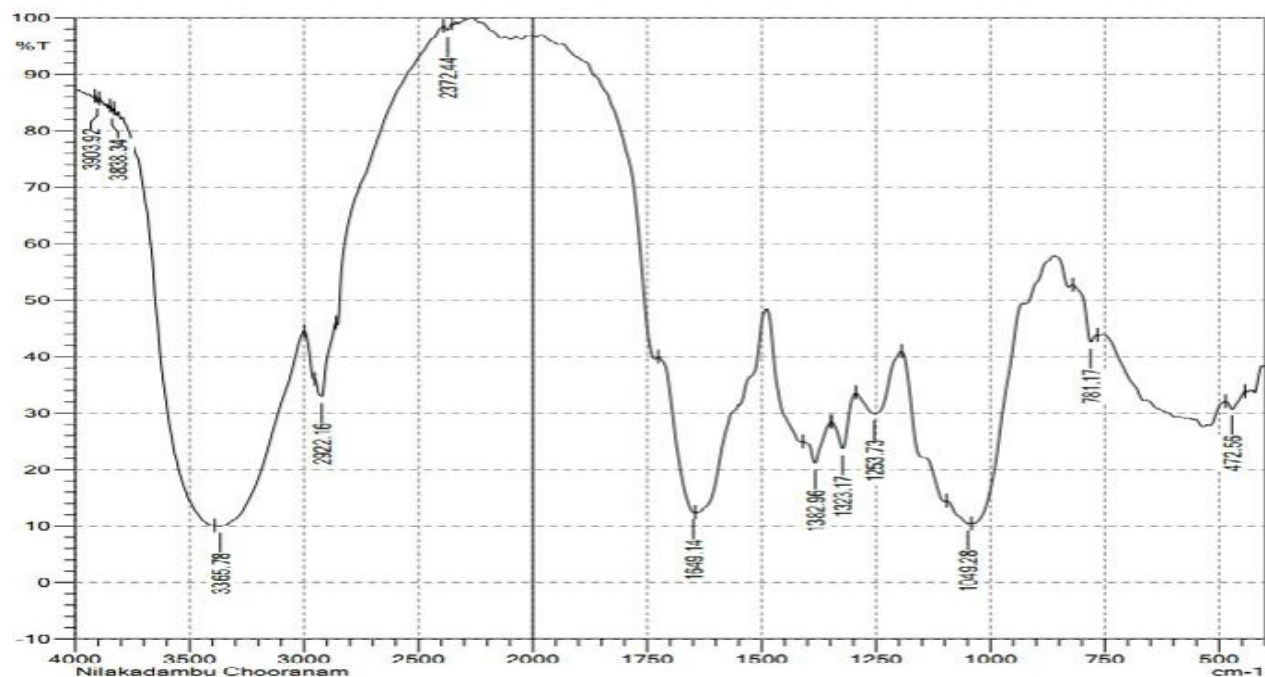
Siddha system of medicine is the most popular traditional system of medicine followed by the people of Tamilnadu. Nowadays, the system is gradually spreading its benefits to the people of surrounding states also. With strong basic principles and cultural background, Siddha system of medicine is providing health care solutions to a number of health issues of the modern era. Most of the traditional systems of medicines are effective but the need is just to validate them. Validation of herbal medicines is one of the toughest challenges for the scientist. There is a need to develop standards to bring this system of medicine in the main stream of health sciences. Here I choose NILAKADAMBU CHOORANAM for the Spectroscopic investigation. To evaluate the functional group identification. Thus can create fingerprints to standardize this medicinal formulation. There is no scientific foot prints are available regarding this formulation so far.

Materials and Methods

NILAKADAMBU CHOORANAM is the Siddha medicine which contains *Elytraria acaulis* (Nilakadambu) which is given for the conditions of menstrual disorders like, amenorrhea, dysmenorrhea, menorrhagia, pain in abdomen during mensuration. The medicine NILAKADAMBU CHOORANAM has been prepared according to Siddha formulary of India Part 1 and used as such for the Spectroscopy study. Fourier Transform- Infra Red Spectroscopy is used primarily for qualitative and quantitative analysis of organic compounds, and also for determining the chemical structure of inorganic materials. The region between 500-4000 wave numbers is referred to as the finger print region. Absorption bands in this region are generally due to intra molecular phenomena and are highly specific for each material. The specificity if these bands allow computerized data searches to be performed against reference libraries to identify materials.

The study was carried out at Arulmigu Kalasalingam University, Krishnankoil, Virudhunagar -626126.

Results



Absorption Peak	Stretch	Functional Groups
3903.92	-	-
3838.34	-	-
3365.78	O-H stretch, H- bonded	Alcohols, Phenols
2922.16	C-H stretch	Alkanes
2372.44	O-H stretch	Carboxylic acids
1649.14	N-H bend	Primary amines
1382.96	C-X	Fluoride
1323.17	C-H bend	CH ₃
1253.73	N-O symmetric stretch	Nitro compounds
1049.28	C-O stretch	Alcohols
781.17	C-H (out of plane)	Aromatics
472.56	C-X	Bromide, Iodide

Discussion

In FT-IR Spectra analysis, this sample Nilakadambu Chooranam exhibits the peak value at 3365.78, 2922.16, 2372.44, 1649.14, 1382.92, 1323.17, 1253.73, 1049.28, 781.17, 472.56 having O-H stretch H- bonded, C-H stretch, O-H stretch, N-H bend, C-X, C-H bend, N-O symmetric stretch, C-O stretch, C-H (out of plane), C-X. This indicates the presence of some organic functional groups such as Alcohols, Phenols, Alkanes, Carboxylic acids, Primary amines, Fluoride, CH₃, Nitro compounds, Alcohols, Aromatics, Bromide, Iodide.

Conclusion

Traditional medicines are always provides higher therapeutic use without causing any harmful effects. Scientific validation of traditional medicines through standardization will provide the knowledge regarding the mechanism of drug action.


These FTIR characterization findings on Siddha drug "NILAKADAMBU CHOORANAM" creates the fingerprints to Standardize this drug. These results may form the base for further structural determination of this Siddha formulation "NILAKADAMBU CHOORANAM".

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References

1. Siddha formulary of India Part - 1
2. Chamberian J, Gibbs JE, Gebbie HE, Infrared physics 1969 (4) : 189-209.
3. Northern Illinois University, Chemistry Analytical lab, FT-IR sample preparation. 2007.
<http://www.niu.edu/ANALYTICALLAB/ftir/samplepreparation.shtml> (06 Oct 2013)

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