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ICP-OES Analysis of some Lead containing plants

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Abstract

Vangam (lead) is one of the heavy metal. It is an amazing heavy metal to treat wide range of diseases. It is naturally present in soil sources and also present in some herbals. The siddha literature in Gunapadam Thathu-Jeevam text book gives information of plants containing lead. Our aim in this paper is scientifically evaluate the presence of lead in those plants.

Keywords: Lead, ICP -OES, Siddha,

Introduction

Metals and minerals are distinctive medicinal source in siddha. It treats a wide range of diseases. Naturally some plants contain minimal amount of metals and minerals like Pb, Cu, Au etc. Before giving medicines made of metals and minerals our siddhars tried many plant sources that contain the same metals and minerals in them. As like to treat bone disorders, skin diseases and etc. Siddhars tried plants that are rich in

vangam (lead) instead of giving them the direct source of the metal vangam (lead). A literature in Gunapadam Thathu Jeevam gives the literature evidence of lead containing plant sources. Our study aims to conclude that the following plants 1.veli paruthi (Pergularia daemia) 2.Surai (Lagenaria siceraria) 3.Ponnaganni (Alternanthera sessilis) 4.Seenthil (Tinospora cordifolia) 5.Siruganpeelai (Aerva lanata) contain vangam (Lead) naturally in them.

Materials and Methods

Literature evidence:

Seethaimuththi rukkanj sevivellaich charvelai
Pathugaive liparuththi musthayum- kothilsurai
Seenthil viluthi sirupeelai vellarugum
Eanthilaye riyamoo li.

- Gunapadam Thathu- Jeevam (page no 116)

Details of the plants:

Table 1

S.No	Name of the plants	Botanical name	Family
1.	Veliparuthi	<i>Pergularia daemia</i>	Asclepiadaceae
2	Surai	<i>Lagenaria siceraria</i>	Cucurbitaceae
3	Ponnanganni	<i>Alternanthera sessilis</i>	Amaranthaceae
4	Seenthil	<i>Tinospora cordifolia</i>	Menispermaceae
5	Siruganpeelai	<i>Aerva lanata</i>	Amaranthaceae

Collection of plants:

The Plants are collected from Tirunelveli and its surroundings.

Authentication of drugs:

The above plants are Authenticated by Associate professor Dr. A. Kingsly M.D(S)., HOD, Department of PG Gunapadam, Government siddha medical college, palayamkottai

Preparation:

The whole plants of table 1 are dried in shade. Then dried plants are powdered separately and prepare for the analysis.

Results

Table 2 shows the level of lead elements in corresponding plants.

Table 2

S.No	Botanical name	Level of lead element
1.	<i>Pergularia daemia</i>	09.788 mg/L
2.	<i>Alternanthera sessilis</i>	08.958 mg/L
3.	<i>Aerva lanata</i>	08.208 mg/L
4.	<i>Tinospora cordifolia</i>	05.158 mg/L
5.	<i>Lagenaria siceraria</i>	03.258 mg/L

Discussion

The five herbal plants are analysed for the presence of lead by the method of ICP -OES analytic method. It gives an result the plant Surai contain 03.258 mg/L and another four plants are Velliparuthi, Ponnanganni, Seenthil, Siruganpeelai contains more than 05.000 mg/L level of lead.

Conclusion

According to the above analysis, all plants are sure to contain lead. The above analysis only does not mean that the plants are in the possession of lead. It covers the unmistakable sophistication of the Siddhars, who discovered it in the absence of any technology in many Centuries ago. Such scientific studies will reveal the unparalleledness of its majesty today. We are blissful and delighted to explain to the world the bizarre intellect knowledge of Siddhars through the results of this study.

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