

Biochemical Analysis of Siddha Polyherbal Drug Uzhignai Kiyazham

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Abstract: Siddha system is a traditional system of medicine in southern part of the India. It was founded by great eighteen saints called siddhars. Cervical spondylosis is a common spinal problem seen now a days. Though degeneration of cervical vertebrae is most commonly seen in elderly peoples but its prevalence is increasing in early and middle age peoples also. In the present case study, a diagnosed case of cervical spondylosis has been included and Uzhignai kiyazham, a siddha drug is taken for biochemical analysis for future study in cervical spondylosis.

Keywords: Cervical spondylosis, Biochemical Analysis, siddhamedicine, Uzhignai kiyazham.

1. Introduction

Cervical spondylosis is natural ageing process involving cervical spine characterised by degeneration of the

extremely common in middle-aged and older patients. It may present with non-specific neck pain or with symptoms of cervical radiculopathy/ myelopathy; and considerably affects the quality of life of the patient. siddhar yugimuni have classified vatha disease into 80 types in yugi vaithiya chinthamani 800.cervical spondylosis symptoms are comparable to Ceganavatham quoted by yugimunivar. In Varma Maruthu Seimuraigal text, Uzhignai indicated for vatha diseases. So, Uzhignai kiyazham is taken into study for the research in cervical spondylosis.

2. Materials and Methods: Uzhignai Kiyazham

1) Source Of Drug Ingredients

The required raw drugs for preparations of Uzhignai

Table 1

Sl. No	Drugs	Botanical Name	Family	Part Used	Quantity
1	Uzhignai	<i>Cardiospermum halicacabum</i>	Sapindaceae	Root	1 Part
2.	Thulasi	<i>Ocimum sanctum</i>	Lamiaceae	Leaf	1 Part
3	Nannari	<i>Hemidesmus indicus</i>	Apocyanaceae	Root	1Part
4	Narchangan	<i>Azima tetrecantha</i>	Salvadoraceae	Root	1 Part
5	Seenthil	<i>Tinospora cardifolia</i>	Menispermaceae	Root	1 Part
6	Kurunthotti	<i>Sida cordifolia</i>	Malvaceae	Root	1 Part
7	Sadhavellikizhangu	<i>Asparagus racemosus</i>	Liliaceae	Tuber	1 Part
8	Vilvaver	<i>Aegle marmelos</i>	Rutaceae	Root	1 Part
9	Kandangathari	<i>Solanum suratense</i>	Solanaceae	Root	1 Part
10	Adathodai	<i>Justicia adathoda</i>	Acanthaceae	Root	1 Part
11	Muthakaasu	<i>Cyperus rotundus</i>	Cyperaceae	Tuber	1 Part
12	Seeragam	<i>Cuminum cyminum</i>	Apiaceae	Seed	½ Part
13	Kothamalli	<i>Coriandrum sativum</i>	Apiaceae	Seed	½ Part
14	Maasikaai	<i>Quercus infectoria</i>	Fagaceae	Unripe fruit	½ Part
15	Thippilimoolam	<i>Piper longum</i>	Piperaceae	Root	½ Part
1	Chukku	<i>Zinger officinale</i>	Zingiberaceae	Tuber	½ Part
17	Kostam	<i>Costua speciosus</i>	Costaceae	Seed	½ Part
18	Elam	<i>Elettaria cardamomum</i>	Zinberaceae	Seed	½ Part
19	Jathipathiri	<i>Myriatica fragrans</i>	Myristicaceae	Aril	½ Part
20	Thalisapathiri	<i>Taxus buccata</i>	Taxaceae	Lead	½ Part
21	Athimadhuram	<i>Glycerrhiza glabra</i>	Fabaceae	Root	½ Part
22	Thippili	<i>Piper longum</i>	Piperaceae	Unripe fruit	½ Part

intervertebral discs, the protrusion and bony overgrowth of adjacent vertebral bodies causing narrowing of the vertebral canal and intervertebral foramina. It causes compression of the nerve roots and sometimes of the spinal cord. The condition is

kiyazham are purchased from a well reputed country shop. The purchased drugs are authenticated by The Faculty / Expert members of Medicinal Botany and Gunapadam department at GSMCH-Palayamkottai.

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2) Methods of Purification and Preparations

All the ingredients have been completely purified as per the siddha literature in the presence knowledge of Guide/Faculty members. Then the trail drug is prepared from the ingredients.

The trial drug, Uzhignai kiyazham contains,

1. Calcium
2. Sulphate
3. Chloride
4. Starch

Table 2
Qualitative analysis

S.no	Experiment	Observation	Inference
01	Test for calcium 2ml of the above prepared extract is taken in a clean test tube. To this add 2ml of 4% Ammonium oxalate solution	A white precipitate is formed	Indicates the presence of calcium
02	Test for sulphate 2ml of the extract is added to 5% Barium chloride solution	A white precipitate is formed	Indicates the presence of sulphate
03	Test for chloride The extract is treated with silver nitrate solution	A white precipitate is formed	Indicates the Presence of chloride
04	Test for carbonate The substance is treated with concentrated Hcl.	No brisk effervescence is formed	Absence of carbonate
05	Test for starch The extract is added with weak iodine solution	Blue colour is formed	Indicates the presence of starch
06	Test for ferric iron The extract is acidified with Glacial acetic acid and potassium Ferro cyanide.	Blue colour is formed	Indicates the presence of ferric iron
07	Test for ferrous iron The extract is treated with concentrated Nitric acid and Ammonium thiocyanate solution	No blood red colour is formed	Absence of ferrous iron
08	Test for phosphate The extract is treated with Ammonium Molybdate and concentrated nitric acid	No yellow precipitate is formed	Absence of phosphate
09	Test for albumin The extract is treated with Esbach's reagent	No yellow precipitate is formed	Absence of albumin
10	Test for tannic acid The extract is treated with ferric chloride.	Blue black precipitate is formed	Indicates the Presence of Tannic acid
11	Test for unsaturation Potassium permanganate solution is added to the extract	It gets decolourised	Indicates the presence of unsaturated compound
12	Test for the reducing sugar 5ml of Benedict's qualitative solution is taken in a test tube and allowed to boil for 2 minutes and add 8-10 drops of the extract and again boil it for 2 minutes.	Colour change occurs	Indicates the Presence of reducing sugar
13	Test for amino acid One or two drops of the extract is placed on a filter paper and dried well. After drying, 1% Ninhydrin is sprayed over the same and dried it well.	Violet colour is formed	Indicates the Presence of Amino acid
14	Test for zinc The extract is treated with Potassium Ferro cyanide.	No white precipitate is formed	Absence of zinc

3) Biochemical analysis

Screening the drug Uzhignai kiyazham to identify the Biochemical properties present in the ingredients.

4) Chemicals and drugs

Chemicals used in this study were of analytical grade obtain from Department of Biochemistry, Government Siddha Medical College & Hospital, Palayamkottai

5) Methodology

5 grams of the drug was weighed accurately and placed in 250ml clean beaker. Then 50ml of distilled water added to it and dissolved well. Then it was boiled well for about 10 minutes. It was cooled and filtered in a 100ml volumetric flask and then it is made upto 100ml with distilled water. This fluid was taken for analysis.

3. Results and Discussion

The Bio chemical analysis of the trial drug Uzhignai kiyazham was tabulated above in table.

5. Ferric iron
6. Tannic acid
7. Unsaturated compound
8. Reducing sugar
9. Amino acid

Mode of action of the trial drug Uzhignai kiyazham which brings about the Bone Mineralisation, osteoblastic and osteoclastic activity in body. May be due to the presence of Sulphate, Amino acid, calcium in it.

4. Conclusion

Uzhignai kiyazham is a Siddha Drug taken from a Siddha literature used in the treatment of vatha diseases. The drug is screened for its bio chemical properties. Further, comprehensive pharmacological analysis is needed to evaluate its potency and the drug has its own potency to undergo further research.

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