Phytochemicals characterization of Amukkara chooranam

Velmurugan K*1 Thiruthani M2 Abdul Kader Jeylani M.P3 Rajarajeshwari A4 Chenthamarai Selvi G5 Arunachalam K6

1PG Scholar Department of Nanju Noolum Maruthuva Neethi Noolum (Siddha Toxicology) Govt Siddha Medical College, Palayamkottai, Tamilnadu, India.
2,3,4,5 Faculties, PG Department of Nanju Noolum Maruthuva Neethi Noolum (Siddha Toxicology) Govt Siddha Medical College, Palayamkottai, Tamilnadu, India.
6PG Department of Nanju Noolum Maruthuva Neethi Noolum (Siddha Toxicology) Govt Siddha Medical College, Palayamkottai, Tamilnadu, India.

Corresponding Author: Dr.K.Velmurugan
PG Scholar Department of Nanju Noolum Maruthuva Neethi Noolum (Siddha Toxicology) Govt Siddha Medical College, Palayamkottai, Tamilnadu, India.
E-mail: kvelmuruganbsms@gmail.com

Abstract

Amukkara chooranam is a orthodox Siddha medicine. Siddha system of medicine is always distinctive due to the interpretation of metals and minerals in their preparations the modern techniques finger prints for Amukkara chooranam phytochemical properties for analyzing its chemical as well as physical nature existing in the final formula.

Keywords: Siddha medicine, phytochemicals, chooranam, amukkara.

Introduction

Herbal and poly herbal medicines are being considered as good in nature because of its therapeutic value characterization is also essential to known the structural and functional property of herbal formulation for wide use. Phytochemicals analysis is very useful nowadays to identify the presence of some properties.

Experimental Sections

Amukkara chooranam is a poly herbal formulation which indicated as a drug in siddha sasthric text agathiya vaidhya rathina churukkam for the treatment of Anemia, pruritus, pneumonitis spasm, gonorrhea, debility, spleenomegaly and insomnia. The ingredients of amukkara chooranam are eight in number. They are naattu amukkara kizhangu, chukku, thippilli, milagu, elam, sirunaagappu, kiraambu, sakkarai. The drug was prepared as the text.
Estimation of flavanoids (Kariyon et al., 1953)

Total flavanoids content was determined by aluminium chloride method using catechin as a standard. 1ml of test sample and 4 ml of water were added to a volumetric flask (10 ml volume). After 5 minutes 0.3 ml of 5% sodium nitrite, 0.3 ml of 10% aluminium chloride was added. After 6 minutes incubation at room temperature, 2 ml of 1 M sodium hydroxide was added to the reaction mixture. Immediately the final volume was made up to 10 ml with distilled water. The absorbance of the reaction mixture was measured at 510 nm spectrophotometrically. Results were expressed as catechin equivalents (mg catechin/ g dried extract).


Quantitative Estimation of Amino acid

Total free amino acid content of freshly collected frozen tissues of a Amukkara chooranam was estimated by ninhydrin method (Moore and Stein, 1948). To suitable aliquots of thechooranam extract, water was added to make the total volume to 4.0 mL. To this, 1.0 mL of ninhydrin reagent was added, mixed and kept in a boiling water bath for 15 minutes. The tubes were then removed, cooled and 1.0 mL of 50% ethanol was added. The pink color developed was measured at 550 nm.


Results and Discussion

All the phytochemicals screened for qualitative analysis were present in the phytochemicals for Amino acid and Flavanoids of Amukkara chooranam. The results of quantitative analysis of the highest amount of Amino acid (32 µg/ml) and flavonoids (20 µg/ml) was recorded in the chooranam.

<table>
<thead>
<tr>
<th>Test</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carbohydrate</td>
<td>Absent</td>
</tr>
<tr>
<td>Reducing sugar</td>
<td>Absent</td>
</tr>
<tr>
<td>Protein</td>
<td>Absent</td>
</tr>
<tr>
<td>Amino acid</td>
<td>Present</td>
</tr>
<tr>
<td>Tannin</td>
<td>Absent</td>
</tr>
<tr>
<td>Steroids</td>
<td>Absent</td>
</tr>
<tr>
<td>Saponins</td>
<td>Absent</td>
</tr>
<tr>
<td>Glycosides</td>
<td>Absent</td>
</tr>
<tr>
<td>Flavanoids</td>
<td>Present</td>
</tr>
<tr>
<td>Phenols</td>
<td>Absent</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Test</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amino acid (µg/ml)</td>
<td>32 µg/ml</td>
</tr>
<tr>
<td>Flavanoid (µg/ml)</td>
<td>20 µg/ml</td>
</tr>
</tbody>
</table>
**Conclusion**

Amukkara chooranam is highly rejuvenating medicine. Both Amino Acid And Flavonoids Are Highly Present In The Amukkara Chooranam. So Amukkara chooranam is very effective in Insomnia Debility and Anemia.

**Acknowledgements**

The Authors wish to thank the Vice Chancellor, The Tamilnadu Dr.MGR Medical University, Guindy Chennai and Specially Thank to The Principal, Govt Siddha Medical College Palayamkottai.

**References**

1. Agathiyar rathina vaidhya churukkam
13. Somasundaram, Medicinal Botany Part I ILangovan Pathipakam, Palayamkottai, Tirunelveli,
14. Somasundaram, Medicinal Botany Part II, IlangovanPathipakam, Palayamkottai, Tirunelveli,
15. Functional groups identification through FTIR characterization of siddha poly herbal formulation “Muppirandai chooranam”