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Phytochemicals characterization of Amukkara chooranam

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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 sathric text agathiyar vaidhya rathina churukkam for the treatment of Anemia, pruritus, pneumonitis spasm, gonorrhoea, debility, splenomegaly 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).

Kariyon, T., Hashimoto, Y and Kimura, M. 1953. Microbial studies of plant components. IX. Distribution of flavanoids in plants by paper chromatography. J. Pharma. Soc. (Japan). 7: 253 - 256.

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 the chooranam 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.

Ref: Moore, S., and Stein, W. H.: Photometric Ninhydrin Method for Use in Chromatography of Amino Acids, J Biol Chem 176:367-388 (Oct.) 1948

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.

Qualitative analysis

Test	Result
Carbohydrate	Absent
Reducing sugar	Absent
Protein	Absent
Aminoacid	Present
Tannin	Absent
Steroids	Absent
Saponins	Absent
Glycosides	Absent
Flavanoids	Present
Phenols	Absent

Quantitative analysis

Test	Result
Amino acid (µg/ ml)	32 µg/ ml
Flavanoid (µg/ ml)	20 µg/ ml

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.

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