THERAPEUTIC PROPERTIES OF "NEELAM SAMBA" - A TAMILNADU TRADITIONAL RICE VARIETY

Abstract

Brown rice has rich nutrients important for a healthy food regimen even as parboiling rice is rich in nutrition and micronutrients. The knowledge about traditional rice varieties has not reached the public and scientific interference about the traditional varieties. This is the time to highlight the significance of medicinal value and its properties in a scientific manner. To reveal the Bioactive compounds and the medicinal properties of the traditional rice variety ***Neelam samba***, to restore our indigenous knowledge about rice, enhance the nutritional values, with a view the study is designed to examine the Bioactive compounds and the Pharmacological activities of selected rice variety. The GCMS study revealed the Presence of antimicrobial, anti-inflammatoryantioxidant, anticancer, and Sex Pheromone compounds. The selected rice variety will be used for the development of functional foods and various other value-added products for a sustainable healthy life.

Keywords: *Neelam Samba*, Traditional Rice, GCMS, Bioactive Compounds

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I. INTRODUCTION

The maximum not unusual rice fed on with the aid of people is polished rice, observed by means of unpolished rice; but purple, red or black colored rice have been cultivated for a long term in Asia (Ahuja et al., 2008). colored rice possesses unique coloration and taste but, because of the problem in the time period of the difficult texture of cooked colored rice, they may be not popular for consumption even though it has been long known approximately the useful results of pigment in those corporations of rice. Neelam Samba is a conventional range that is surprisingly appropriate for cultivation in regions that are vulnerable to water logging.

Altogether, the value of cultivation could be very low. Those facts are favorable and worthwhile to the rural farming network. The goal of this look at became to examine the phytochemical and its Pharmacological position of organic traditional rice range Neelam samba. This may facilitate further information of its inherent houses that will assist toward optimizing its usage and make it commercially feasible.

II. MATERIALS AND METHODS

The traditional rice variety **"*Neelam Samba*"** was collected from a Thanjavur District, Tamilnadu. The paddy samples obtained were stored under -20°C in deep freezer. This paddy was taken out kept in the atmospheric condition for equalization of moisture and after allowing for a week's exposure the moisture was analyzed and the paddy was shelled in the "Satake" Laboratory model Rubber Role Sheller. After shelling it was pulverized in "Fritze" pulverizer and used for analysis.

III. ANALYSIS OF BIOACTIVE COMPOUNDS BY GC-MS

25g of Neelam Samba rice powder extracted with 95% ethanol for 12 hours, then 2µl of this extract was used for GC/MS analysis.

IV. RESULTS AND DISCUSSION

The results relating GC - MS evaluation brought about the identification of variety of compounds from the GC fractions of the ethanolic extract of decided on sample Neelan Samba. The compound prediction is based on Dr.Duke's Phytochemical and ethnobotanical Databases. The medicinal uses of phytocomponents recognized in Neelan samba become tabulated in table 1. The presence of diverse bioactive compounds confirms the application of selected pattern Neelan samba for numerous ailments through conventional practitioners.

Table 1: Components Identified in the *Neelam Samba and its Medicinal Properties*
[GC MS study]

No.	Name of the compound	Biological Activity
1.	1,2-Benzenedicarboxylic acid, butyl octyl ester	Anti-inflammatory (Li et al., 2004) andantibacterial interest (Modupe et al., 2010).
2.	Hexadecanoic acid, ethyl ester (Palmitic acid,ethyl ester)	Antioxidant, Hypocholesterolemic Nematicide, Pesticide,Lubricant, Antiandrogenic, flavor,Hemolytic five- Alpha reductase inhibitor (Rajeswari *et al., 2012*)
3.	9,12-Octadecadienoic acid, methyl ester, (E,E)- (Linolelaidic acid, methyl ester)	Antiinflammatory, Hypocholesterolemic, cancer preventive, Hepatoprotective, Nematicide Insectifuge, Antihistaminic, Antieczemic, Antiacne, five-Alpha reductase inhibitor Antiandrogenic, Antiarthritic, Anticoronary, Insectifuge (Rehana Banu and Nagarajan 2013)
4.	Oleic Acid	Antitumor effect (Carrillo *et al., 2012*)
5.	Didodecyl phthalate	Vasodilator, Angiotensin AT2 receptor antagonist, Uric acid excretion stimulant and Diuretic (Mallikadevi *et al., 2012*)
6.	1,2-15,16-Diepoxyhexadecane	Cytotoxicity (Murugesan Amudha and Shanmugam Rani 2014)
7.	6,11-Dimethyl-2,6,10-dodecatrien-1-ol	Antimicrobial Activity (Mohan Das *et al., 2013*)
8.	cis-Z-à-Bisabolene epoxide	To boom intercourse hormone interest (Amutha Iswarya Devi and Kottai Muthu 2014)
9.	2H-Pyran, 2-(7-heptadecynyloxy)tetrahydro-	Antimicrobial , Antiinflammatory and Antioxidant (Anand and Gokulakrishnan2012)

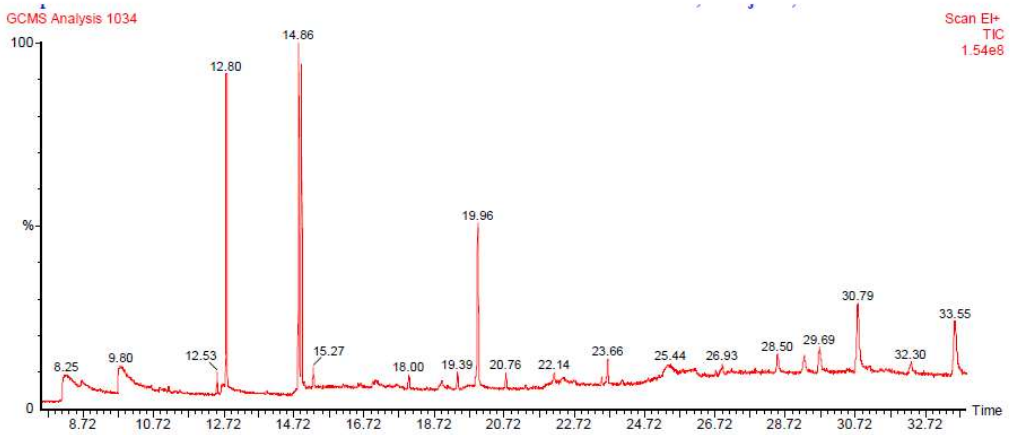

Figure 1: GCMS Chromatogram

V. CONCLUSION

Traditional rice possesses extensive allegations to human health not simply in terms of food but also as a medication. It has the capacity to control most cancers and devasting diseases current state of affairs. Therefore the rice used as meals and easy to formulate Nutraceutical can serve as a tool in self-medicine for human diseases. This observation explores the goodness of the pattern Neelan samba which has phytopharmaceutical significance. Our prime duty is to conserve and cultivate traditional rice varieties for a sustainable healthy life.

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