



## **Scientific Evaluation of Sastric Formulation *Sangu Chunnam* for its Antioxidant potential**

**Venkateswaran K<sup>\*1</sup>, Srinivas P<sup>2</sup>, Arunachalam K<sup>3</sup>**

<sup>1</sup> Senior Research Fellow Dr. Achanta Lakshmipathi Research Centre for Ayurveda,  
Central Council for Research in Ayurvedic Sciences. Chennai, Tamil nadu, India

<sup>2</sup> Research Officer Scientist III Dr. Achanta Lakshmipathi Research Centre for Ayurveda,  
Central Council for Research in Ayurvedic Sciences Chennai, Tamil nadu, India

<sup>3</sup> Post Graduate Department of Nanju Noolum Maruthuva Neethi Noolum (siddha Toxicology),  
Tamil nadu, India

**Corresponding author: Dr.K.Venkateswaran BAMS**

Senior Research Fellow Dr. Achanta Lakshmipathi Research Centre for Ayurveda,  
Central Council for Research in Ayurvedic Sciences. Chennai, Tamil nadu, India

Email: [venkateswaran1305@gmail.com](mailto:venkateswaran1305@gmail.com)

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### **Abstract**

To evaluate the antioxidant activity of sangu chunnam in sastric preparation. This assay is based on the qualification of the degradation product of 2 deoxy ribose by condensation with TBA (Elizabeth and Rao, 1990). Hydroxyl radical was generated by the Fe<sup>3+</sup> - ascorbate- EDTA -H<sub>2</sub>O<sub>2</sub> system (The Fenton reaction).

**Keywords:** sangu chunnam, anti oxidant, sastric preparation

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### **Introduction**

Traditional systems of medicine in India include Ayurveda, Siddha and Unani (ASU). All these Indian systems of medicine use plants, minerals and animal products as main drugs to cure various ailments. There has been a boom in the usage of ASU drugs and export is appreciably high in the last two decades. All over the world traditional systems of medicine have become significantly more popular because of the curative property. Ayurveda system is one of the unique traditional medical system in the world. Ayurveda medical system is efficacious because of the numerous

mineral and Metallic formulations. Because herbo metallic preparations like “bhasma”, “chendhuram” type of medicines having some advantages like include better Stability, lower dosage, ease of storability and sustained availability

### **Materials and Methods**

Different concentration of extracts 12.5-200µL from the stock solution mixed with 500µl reaction mixture((2 deoxy 2 ribose (2.8mM), FeCl<sub>3</sub> (100µm), EDTA (100µm), H<sub>2</sub>O<sub>2</sub> (1.0mM), ascorbic acid (100µm) in KH<sub>2</sub>PO<sub>4</sub> - KOH buffer

(20 mM pH 7.4) was made up to a final volume of 1 ml .A control without the test compound, but an equivalent amount of distilled water was taken. After incubation for 1hour at 37°C, add 1ml of 2.8% TCA, then 1ml 1% aqueous TBA was added and the mixture was incubated at 90°C for 15 minutes to develop the colour. After cooling the

absorbance was measured at 532nm against an appropriate blank solution.

**Calculation**

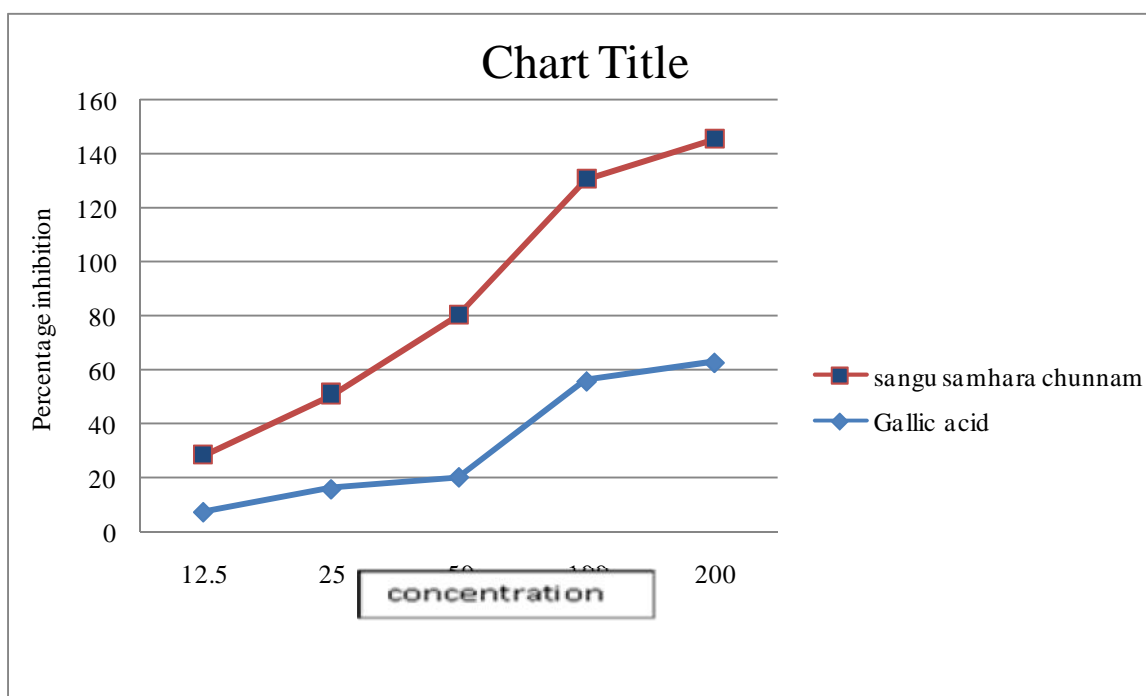
$$\% \text{ inhibition} = \frac{\text{control-test}}{\text{control}} \times 100$$

**Gallic acid standard**

Concentration(µg/ml)	Absorbance	Percentage of inhibition
Control	0.562	
12.5	0.521	7.29
25	0.473	15.83
50	0.448	20.28
100	0.247	56.04
200	0.208	62.98

**Results**

concentrations (µg/ml)	Gallic acid	Sangu samhara Chunnam
12.5	7.29%	21.48%
25	15.83%	35.35%
50	20.28%	60.21%
100	56.04%	75.02%
200	62.98%	82.63%



## Discussion

Free radicals are persistently produced and they produce vast damage to tissues and biomolecules leading to various conditions, especially degenerative diseases and also accelerated aging. Many drugs are said to protect against oxidative damage but they have adverse side effects. An alternative solution to the problem is to consume antioxidants from sastric medicines. Sangu chunnam is one among sastric drugs which is said to have properties to work against age related deterioration in the body. Sangu chunnam is a herbo mineral preparation composed of conch shell, sulphur, mercury, Red sulphide of mercury, mercurous chloride, mercuric chloride, white arsenic, yellow arsenic and ammonium chloride, which are all well known to exert immunomodulator, antioxidant and free radical scavenging activities.

## Conclusion

The results obtained in this study, it can be concluded that the sangu chunnam which contained vast amount of phenol compounds exhibits high antioxidant and free radical scavenging activities. It also has reducing power. These *in vitro* assays indicate that this sastric preparation is a significant source of anti oxidant,

which might be useful in preventing the various age related diseases and preventing premature ageing.

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