

**“Comparative study of Free Radical Scavenging activity of
Theobroma cacao L. with different anupana (vehicle)”**



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ABSTRACT:

“Comparative study of Free Radical Scavenging activity of *Theobroma cacao* L. with different anupana (vehicle).”

Introduction:

Rasayana is defined as the drug which destroys the process of ageing and diseases. The *rasayana* dravyas increases the *rasa*, *rakta* and other *dhatu*s, thereby increases the strength of the body as well as life span of a person. These *dravyas* also postpone ageing process, increases the resistance of the individual and helps in preventing diseases.

The cocoa plant is not mentioned in the ayurvedic literature. But now a days cocoa is very popular and is widely used product worldwide. It has proven anti-oxidant property. The present study was done to see the efficacy with different anupana of cocoa churna.

Aim & Objectives:

Aim:

- To evaluate free radical scavenging activity of *Theobroma cacao* L. with the help of different *Anupana* on healthy individuals.

Objectives:

- To screen the efficacy of *Anupana* (concept of vehicle) of *Theobroma cacao* L. churna as with cow milk & buffalo water.
- To screen the cocoa (*Theobroma cacao* L.) powder pharmacognostically, phytochemically & for its taste threshold methods.

Material and Methods:

Pharmacognostical study: Macroscopic and microscopic study of test drug was done.

Analytical study: Organoleptic parameters, physico-chemical parameters, preliminary phytochemical analysis, inorganic minerals analysis was done.

Clinical study: 32 subjects who fulfill the inclusion criteria was selected from the OPD of swasthavrutta, Parul Ayurved Hospital, Parul University after taking their informed consent.

Study design: Open Randomized clinical trial.

Assessment criteria: Serum Super Oxide Dismutase and Serum Catalase. It was done before the start of clinical trial and after the completion of clinical trial.

Results: The change in the values before and after treatments was assessed by paired Student's T- test and in between two groups with unpaired Student's T- test. There is a statistically significant improvement in values.

Interpretation and Conclusion: After all observation, discussion and result concluded that *Theobroma cacao* definitely possesses anti-oxidant property. By comparing both groups, it was revealed that the anti-oxidant activity of Cocoa with cow milk as a *Anupana* is highly significant.

Keywords: *Cacao*, Cow milk, SOD, CAT.