

**“EVALUATION OF FREE RADICAL SCAVENGING ACTIVITY OF *HARITAKI CHURNA (TERMINALIA CHEBULA RETZ.) & GUDUCHI CHURNA (TINOSPORA CORDIFOLIA WILLED. MIERS.) ON HEALTHY INDIVIDUALS.*”**



Dissertation submitted as partial fulfillment for the degree of

**Ayurveda Vachaspati**

**[Doctor of Medicine]**

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**April – 2019**

**Enrollment No - 160202204006**

## ABSTRACT

### Objectives:

- ▶ To assess the free radical scavenging capacity of individual drugs i.e *Haritaki* and *Guduchi* respectively on healthy volunteer's.
- ▶ To assess the differential free radical scavenging activity of *Haritaki churna* and *Guduchi churna* along with the controlled group.

### Methodology:

1. Raw drug was facilitated by the Parul Ayurveda Pharmacy, Wagodiya, Vadodara.
2. analytical study and Heavy metal analysis of both the drugs was done at Vasu Pharmaceuticals, Vadodara.
3. HPTLC of both the drug was done for both the drugs.
4. 30 healthy *volunteers* were selected from the Parul University and Divided in 3 groups.  
Group A - *Haritaki churna*  
Group B - *Guduchi churna*  
Group C - Control
5. Blood samples (nearly about 5 ml) of all 30 volunteers were collected in vacuoner, blood collection tubes before starting the study and collected blood samples were transferred to centrifuge machine for centrifugation. After 5 minutes of centrifugation serum was be collected at top (approximately about 2 ml) of the tubes, then serum was preserved in deep freezer at -80<sup>0</sup> C. Then from next day administration of the drug ( *Haritaki & Guduchi churna* ) was started for 30 days. After completion of 30 days again blood sample was collected in unbreakable non-vacume tubes transferred it to centrifuge machine, collect the serum. Next to that readings were taken in microplate reader machine.
6. *Rasayana* study carried out as per Superoxide dismutase (SOD) and Catalase (CAT) on healthy individuals using *Haritaki & Guduchi Churna* at dose of 3gm respectively and findings were analyzed by using Kolmogorov Smirnov

test, One way ANOVA, Tukeys multiple Posthoc procedures and Dependent t test.

### **Results:**

- ▶ In group A the mean value of SOD levels decreased by 15.6% in the mean values after the oral intake of *Haritaki churna*.
- ▶ Group B who was administered *Guduchi churna* has shown a reduction of 12.2% in the mean value.
- ▶ There was an increase in the in the mean values of SOD levels in the control group C of 14.8% after the end of 30 days.
- ▶ The mean value of CAT levels showed 32.9% of reduction after the oral intake of *Haritaki churna* in group A
- ▶ Group B who was administered *Guduchi churna* has shown a reduction of 23.42%. The mean value in CAT levels.
- ▶ There was also a reduction seen in the mean values of CAT in group C. The values decreased to 17.2%.

### **Conclusions:**

- *Haritaki Churna* showed highly significant results in free radical scavenging activity in both the tests (Significant at the level  $*p < 0.05$ ) as compared to other groups B & group C.
- *Guduchi Churna* in Group B has also showed significant results in free radical scavenging activity which is less than group A and more than group C

**Keywords:** *Haritaki, Guduchi, Churna*, Super oxide Dismutase, Catalase