



## TO STUDY EFFECT OF GUDUCHI SWARAS IN GROWTH OF CHILDREN

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### **ABSTRACT**

Health problems of child in the third world are most pressing. Numerous adults and children die each year from the effect of famine and starvation in developing country in contrast many people's die due to hyper nutritional disorders like obesity, diabetes in developed countries. The condition like famine starvation and low economical status of families influences the physical as well as mental growth of children in accordance with above said problem rasyana dravyas in ayurveda have these property to overcome hence here an attempt is made to study the effect of guduchi swaras in growth of 30 children having weight 80 to 90% of their expected weight at age of 6 to 8years given in 50<sup>th</sup> percentile as median given in NCHS in collaboration with CDC2000 charts which is normal according to IAP were selected with madu as an anupana as dose of 20 ml respectively for three month and

follow up after 15 days with their routine diet and children were assessed and evaluated on the basis of subjective and objective parameters. 20% children shows very much improvement in growth 36.67% shows momentary improvement and 43.33% did not show any improvement.

**KEYWORDS:** Guduchi (*Tinospora cordifolia*), madhu (Honey) NCHS (National centre for health statistics, CDC (center for chronic diseases and health promotion), IAP (Indian paediatrics association).

### **INTRUCTION**

Ayurveda is a science of life its first and Foremost aim is to preserve good health and to prolong the life secondly to combat Diseases swasthavritta is a most important branch of

Ayurved illustrate many things for study of social health, growth or road to health is phenomenon peculiar to the Paediatric age group normal growth of child Takes place when there is a optimal nutrition, freedom from recurrent episodes of infection. freedom from genetic and environmental influences.while defining rasayana tantra as apart of astang ayurveda is measure to preserve the youthfulness to prolong life to promote medha (memory and intelligence) bal(physical and immunological strength) and capacity to remove the diseases among various rasayana dravyas guduchi (*Tinospora cordifolia* ) is one of rasayana which have following properties rasayana, tridoshagna.dipana.balya to overcome intense worldwide problem of growth retardation and malnutrition an attempt is made to search simple, chief, easily available remedy in growth of children.

### **AIMS AND OBJECTIVES**

- \*To study effect of guduchi swaras in growth of children.
- \*To study effect of guduchi swaras above 80 to 90% of their expected weight at their age i.e.6 to 8 years
- \*To estimate overall effect of guduchi swaras in growth of children by comparing with standard growth chart developed by NCHS.
- \*To study possible duration of effect of guduchi swarsa in growth of children.
- \*To give comparatively cheap and easily available remedy in growth of children.

### **MATERIAL AND METHOD**

#### **Material of Study**

- 1) Children.
- 2) Guduchi swaras.
- 3) Madhu.

#### **1)Children**

##### **a)Selection Criteria**

- 1) For the clinical study of effect of guduchi swaras in growth of children having weight 80-90% of their expected weigh at the age of 6to8 years given in 50<sup>th</sup> percentile as median given in NCHS in collaboration with CDC 2000 charts which is normal according to IAP were selected.
- 2)Children free from any systemic /surgical illness.

**b) Rejection Criteria**

- 1) Malnourished children's of grade I, II, III, IV.
- 2) Age below 6 yrs and above 8 yrs.
- 3) Any medical emergencies /condition requiring surgical intervention.
- 4) Children with complications were dropped.

**2) Guduchi swaras****a) Reason for selection**

According to Bhavpraksh samhita guduchi is madhur Vipak. Tridoshgna. Rasyana. Balya due to all these properties it was selected.

**3) Madhu**

Makshika type of madhu as mentioned in classical text obtained from local market and used as anupan for guduchi swaras.

**4) Method of study**

For study purpose, 30 children's from both sex were randomly selected in experimental group. Freshly prepared guduchi swaras is given 20ml to each subject in morning session with madhu as an anupan 20ml with their routine diet for 30 days with follow up after 15 days. Children's were assessed and evaluated on the basis of subjective and objective parameters.

**1) Objective parameters**

- 1) Height.
- 2) Weight.
- 3) Chest circumference.
- 4) Head circumference.
- 5) Mid arm circumference.

**2) Subjective parameters**

- 1) Diet intake.
- 2) Skin luster.

**3) Investigations**

Hb%, TLC, DLC, ESR.

**RESULTS****Sex wise distribution of children.**

| sex    | No.of ch. | %     |
|--------|-----------|-------|
| Male   | 19        | 63.33 |
| Female | 11        | 36.67 |
| Total  | 30        | 100   |

**Age wise distribution of children**

| Age     | No.of ch. | %      |
|---------|-----------|--------|
| 6-6.5   | 09        | 30.00  |
| 6.6-7.0 | 07        | 23.33  |
| 7.1-7.5 | 02        | 06.67  |
| 7.6-8.0 | 12        | 40.00  |
| Total   | 30        | 100.00 |

**Religion wise distribution of children**

| Religion | No.of ch. | %      |
|----------|-----------|--------|
| Hindu    | 20        | 66.67  |
| Muslim   | 04        | 13.33  |
| Others   | 06        | 20.00  |
| Total    | 30        | 100.00 |

**Economical status wise distribution of children**

| Ec.Status | No.of ch. | %      |
|-----------|-----------|--------|
| Low       | 11        | 36.67  |
| Medium    | 16        | 53.33  |
| High      | 03        | 10.00  |
| Total     | 30        | 100.00 |

**Diet pattern wise distribution of children**

| Diet pattern | No.of ch. | %      |
|--------------|-----------|--------|
| Mix          | 12        | 40.00  |
| Vegetarian   | 18        | 60.00  |
| Total        | 30        | 100.00 |

**Paired t test weight:** When before and after weight of experimental group were compared with paired t test it was significant at  $p < 0.05$ .

|         |        |
|---------|--------|
| Mean    | 0.7    |
| S.D     | 0.0746 |
| S.E     | 0.0136 |
| T cal   | 51.373 |
| T table | 2.05   |

**Paired t test height:** When before and after height of experimental group were compared with paired t test it was significant at  $p < 0.05$ .

|                |              |
|----------------|--------------|
| <b>Mean</b>    | <b>1.313</b> |
| <b>S.D</b>     | 0.067        |
| <b>S.E</b>     | 0.012        |
| <b>T cal</b>   | 105.56       |
| <b>T table</b> | 2.05         |

**Paired t test head circumference:** When before and after head circumference of experimental group were compared with paired t test it was significant at  $p < 0.05$ .

|                |              |
|----------------|--------------|
| <b>Mean</b>    | <b>0.20.</b> |
| <b>S.D</b>     | 0.089        |
| <b>S.E</b>     | 0.017        |
| <b>T cal</b>   | 12.57        |
| <b>T table</b> | 2.05         |

**Paired t test chest circumference:** When before and after chest circumference of experimental group were compared with paired t test it was significant at  $p < 0.05$ .

|                |              |
|----------------|--------------|
| <b>Mean</b>    | <b>0.245</b> |
| <b>S.D</b>     | 0.106        |
| <b>S.E</b>     | 0.0195       |
| <b>T cal</b>   | 12.53        |
| <b>T table</b> | 2.05         |

**Paired t test mid arm circumference:** When before and after mid arm circumference of experimental group were compared with paired t test it was significant at  $p < 0.05$ .

|                |              |
|----------------|--------------|
| <b>Mean</b>    | <b>0.320</b> |
| <b>S.D</b>     | 0.085        |
| <b>S.E</b>     | 0.016        |
| <b>T cal</b>   | 20.76        |
| <b>T table</b> | 2.05         |

**Paired t test skin lustre:** When before and after skin lustre of experimental group were compared with paired t test it was significant at  $p < 0.05$ .

|                |              |
|----------------|--------------|
| <b>Mean</b>    | <b>0.734</b> |
| <b>S.D</b>     | 0.637        |
| <b>S.E</b>     | 0.116        |
| <b>T cal</b>   | 6.29         |
| <b>T table</b> | 2.05         |

**Paired t test diet intake:** When before and after diet intake of experimental group were compared with paired t test it was significant at  $p < 0.05$ .

|                |              |
|----------------|--------------|
| <b>Mean</b>    | <b>1.167</b> |
| <b>S.D</b>     | 0.591        |
| <b>S.E</b>     | 0.107        |
| <b>T cal</b>   | 10.80        |
| <b>T table</b> | 2.05         |

**Paired t test Hb%:** When before and after Hb% of experimental group were compared with paired t test it was significant at  $p < 0.05$ .

|                |              |
|----------------|--------------|
| <b>Mean</b>    | <b>0.573</b> |
| <b>S.D</b>     | 0.468        |
| <b>S.E</b>     | 0.085        |
| <b>T cal</b>   | 6.70         |
| <b>T table</b> | 2.05         |

## DISCUSSION

Physical strength of children is seat of health and therefore it should be preserved by all means in Ayurveda Rasayana therapy is most important therapy in this regard hence guduchi swaras is one of the rasayana which is Tridoshagana which prevent recurrent infection in children by immune boosting property, it is balya in nature which gives strength to the muscles. Madhu as anupana which is yogvahi means do not change property of drug and used as catalyst as well as mediator to change bitter taste of guduchi swaras. as in sharangdhar samhita mentioned that as guduchi swaras is guru in nature it should be used in minimum quantity i.e. used in dose of ardra pal i.e. 20ml. Time of drug administration is pragbhukta because of medicines administered before meal are ideal for patients like Bal, Vriddha, Krusha Follow up of 30 days was so as to get optimal results. Children's were selected because surveys shows there are most pressing problem of growth retardation amongst the school going children.

## CONCLUSION

By statistical analysis it is concluded that guduchi swaras with madhu as an anupana is effective in growth of children. it is safe and cost effective and easy procedure to perform hence textual properties of guduchi Rasayana, Balya, Agnidipaka were proved. But the number of patients was not sufficient to claim this effect hence further study is advised to assess its role by increasing sample size, frequency of drug administration. by continuing therapy for longer time.

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