A Comparative Study of Vidaaryadi Gana Siddha Ghrita internally and Tab. Cetirizine HCl in Vataj Pratishyaya with Special Reference to Allergic Rhinitis.

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Abstract:
Background: Vataj Pratishyaya can be compared to allergic rhinitis as there are similar signs and symptoms. There it vitiates the Kaphadi dosha and causes the disease Pratishyaya. Objectives: To access the effect of Vidaaryadi Gana Siddha Ghruta internally in Niramavastha of Vataj Pratishyaya (Allergic Rhinitis), to compare the effect of Vidaaryadi Gana Siddha Ghruta with Tab. Cetirizine HCl in Vataj Pratishyaya (Allergic Rhinitis). Methodology: It was Randomised controlled comparative clinical study. The study was carried in O.P.D and I.P.D of Hospital attached to the College. Total 40 patients were selected; all patients of Group-A were advised to take 10 ml of Vidaaryadi gana siddha ghrita with lukewarm water after meals twice daily for 10 days while Group B advised Tab. Cetirizine hcl 10 mg at night [h.s] for 10 days. Results & Conclusion: Group A therapy is equally effective as Group B in reducing the signs and symptoms in patients of Vataj Pratishyaya (Allergic Rhinitis). No side effects were observed during and after the treatment with both the therapies.

Keywords: Vataj Pratishyaya, Vidaaryadi gana siddha ghrita, Cetirizine, Nasa, Indriya

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INTRODUCTION:
‘Shalakyatantra’ is one important Anga among Astang Ayurveda. Shalakyatantra includes Urdhwajatrugata Rogas (Diseases above the Clavicle) i.e, Diseases of Ear, Nose, Throat, Eyes, Oral cavity, Head and Scalp. Acharya Charaka described Indriya as basic body parts which differentiating the living and non-living matters.[1] Nasa is one of the indriya among panch gyanendriya as it plays vital role in process of respiration and the organ of olfaction. The disorder of nasa have been described widely by all the Acharyas. Acharya Susrutha has described 31 nasagatha rogas. Among them pratishyaya is one of the most important diseases. The Vata dosha attains pratiloma gati and moves upwards to mastishka pradesha.[2] There it vitiates the Kaphadi dosha and causes the disease Pratishyaya. Dalhana, the commentator of Sushruta Samhita defines Pratishyaya as – ‘Vatam prati abhimukham syayo gamanam kaphadinam yatra sa Pratishyayah.’[3]
Pratishyaya is characterized by following symptoms like:[4,5,6]
1. Nasasrava (Running Nose),
2. Ghranauparodha (Nasal Obstruction or Congestion),
3. Shirashoolam (Headache),
4. Shirogauravam (Heaviness of Head),
5. Jwara (Fever),
6. Kasa (Cough),
7. Kaphotklesha(Phlegm),
8. Swarabheda (Hoarseness of Voice),
9. Aruchi (Anorexia),
10. Klama (Tiredness) and indriyanamasamarthyam (affected senses).

Thus, this research work was planned in such a way that the effect of Vidaaryadi Gana Siddha Ghruta internally in Vataj Pratishyaya was evaluated under a research project entitled “A Comparative Study of Vidaaryadi Gana Siddha Ghrita internally And Tab. Cetirizine Hcl in Vataj Pratishyaya with Special Reference to Allergic Rhinitis”.

OBJECTIVES:
1. To access the effect of Vidaaryadi Gana Siddha Ghruta internally in Niramavastha of Vataj Pratishyaya (Allergic Rhinitis).
2. To compare the effect of Vidaaryadi Gana Siddha Ghrita with Tab. Cetirizine Hcl in Vataj Pratishyaya (Allergic Rhinitis).

METHODOLOGY:
Type of study: Randomised controlled comparative clinical study.

Plan of study:-
The study was carried in O.P.D and I.P.D of Hospital attached to the College. The study was carried from August 2008 to August 2009 and results were assessed till September 2009.

Selection Criteria:
Inclusion Criteria:-
1) The age group of selected patients was in the range of 15 years to 40 years of either sex.
2) Patients having symptoms of Vataj Pratishyaya (Niramavastha) that are recurrent attacks of excessive sneezing, rhinorrhoea, blocking of nose, irritation of nose are included.

Exclusion Criteria:
1. Patients in amavastha of disease.
2. Patients suffering from nasal diseases like polyps, deviated nasal septum, atrophic rhinitis, rhinitis medicamentosa etc.
3. Patients suffering from other serious systemic disease, cardiopathy, malignancies,
4. Koch’s, asthma, diabetes, renal impairment, hepatitis etc.

Group management: Total 40 patients were selected and grouped according to treatment as:

Group A (Trial group):-
All patients of this group were advised to take 10 ml of vidaaryadi gana siddha ghrita with lukewarm water after meals [vata kala-As.hru.su.1/8] twice daily for 10 days with follow ups on 2nd, 3rd, 7th and 10th day.

Group B: Tab. Cetirizine hcl 10 mg at night [h.s] for 10 days.
Patients of both the groups were monitored carefully throughout the treatment and during the follow up of 10 days. Results were observed and recorded after the completion of duration of treatment accordingly and analyzed statistically.

Drug Contents:[7]
Acharya Sushruta has described various Aushadi gana’s in Sutrasthana chapter no.38 named Dravyasangrahaniya. According to him Vidaaryadi gana includes Vidaarigandha, Vidaari, ishvadeva, Sahdeva, Gokshur, Prushniparni, Shatavari, Sariva, Kusnasariva, Jeevak, Rushabhak, Maashparni, Mugdaparni, Bruhati, Kantakari, Punarnava, Erand, Hanspadi, Vrushchikaali, and Kraunch.

Assessment criteria:
The criteria adopted for the assessment of the effect of Vidaaryadi gana siddha ghrita internally in respect to Tab. Cetirizine hcl was divided on different parameters.

1. **Kshavathu (Excessive sneezing)**
   - Absent- no sneezing 0
   - Present 1

2. **Nasa-srava (Rhinorrhoea)**
   - Normal- no rhinorrhoea 0
   - Mild- does not affect routine work 1
   - Moderate- affects routine work 2
   - Severe- unable to perform routine wor 3

3. **Nasa-avarodh (Blocking of nose)**
   - Normal- no blocking 0
   - Mild- occasionally 1
   - Moderate- alternate nasal and mouth breathing 2
   - Severe- complete, so prefers mouth breathing 3

4. **Shiro-vyatha (Headache)**
   - Normal- no headache 0
   - Mild- mild headache 1
   - Moderate- present but not troublesome 2
   - Severe- troublesome 3
OBSERVATIONS & RESULTS:

Table No. 1 Age wise Distribution of Patients

<table>
<thead>
<tr>
<th>Sr. no</th>
<th>Age in Years</th>
<th>Group A</th>
<th>Group B</th>
<th>Total</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>No. of Patients</td>
<td>%</td>
<td>No. of Patients</td>
<td>%</td>
</tr>
<tr>
<td>1</td>
<td>15-20</td>
<td>5</td>
<td>25</td>
<td>4</td>
<td>20</td>
</tr>
<tr>
<td>2</td>
<td>21-30</td>
<td>6</td>
<td>30</td>
<td>8</td>
<td>40</td>
</tr>
<tr>
<td>3</td>
<td>31-40</td>
<td>5</td>
<td>25</td>
<td>3</td>
<td>15</td>
</tr>
<tr>
<td>4</td>
<td>41-50</td>
<td>4</td>
<td>20</td>
<td>5</td>
<td>25</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>20</td>
<td>100</td>
<td>20</td>
<td>100</td>
</tr>
</tbody>
</table>

Above table shows that incidence of Vataj pratishyaya (Allergic rhinitis) is more in the age group 21-30 yrs i.e., 14 (35%).

Table No. 2 Sex wise distribution:

<table>
<thead>
<tr>
<th>Sr.no</th>
<th>Male</th>
<th>Group A</th>
<th>Group B</th>
<th>Total</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>No. of Patients</td>
<td>%</td>
<td>No. of Patients</td>
<td>%</td>
</tr>
<tr>
<td>1</td>
<td>Male</td>
<td>11</td>
<td>55</td>
<td>10</td>
<td>50</td>
</tr>
<tr>
<td>2</td>
<td>Female</td>
<td>9</td>
<td>45</td>
<td>10</td>
<td>50</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>20</td>
<td>100</td>
<td>20</td>
<td>100</td>
</tr>
</tbody>
</table>

Above table shows that incidence of Vataj Pratishyaya (Allergic rhinitis) is more in males i.e., 21 (52.5%) than in females 19 (47.5%).

Table No. 3 Wilcoxon Signed Rank Test for the Symptoms of Vataj Pratishyay:

<table>
<thead>
<tr>
<th>No</th>
<th>Symptoms</th>
<th>Group</th>
<th>Mean ± SD</th>
<th>Median</th>
<th>p Value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>BT</td>
<td>AT</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Kshavathu (Excessive Sneezing)</td>
<td>Group-A</td>
<td>1.00±0.00</td>
<td>0.005±0.2236</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Group-B</td>
<td>1.00±0.00</td>
<td>0.005±0.2236</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>NasaSrava (Rhinorrhhea)</td>
<td>Group-A</td>
<td>2.35±0.58</td>
<td>0.50±0.51</td>
<td>2</td>
</tr>
</tbody>
</table>
### Effect of Therapy on Symptoms of Vataj Pratishyaya Statistically:

In Group A the above symptom's (Kshavathu/Excessive sneezing) Before treatment Mean ± S.D is 1 ± 0 and After treatment Mean ± S.D is 0.05 ± 0.2236, whose P value <0.001 means Vidaaryadi gana siddha ghrita is highly significant in controlling Kshavathu/Excessive sneezing in Group A patients. In Group B the above symptom's (Kshavathu/Excessive sneezing) Before treatment Mean ± S.D is 1 ± 0 and After treatment Mean ± S.D is 0.05 ± 0.2236, whose P value <0.001 means Cetirizine Hcl is highly significant in controlling Nasasrava/Rhinorrhoea in Group B patients. After complete duration of treatment, the above symptom was relieved in 95% patients of both groups.

In Group A the above symptom's (Nasasrava/Rhinorrhoea) Before treatment Mean ± S.D is 2.35 ± 0.5871 and After treatment Mean ± S.D is 0.5 ± 0.513, whose P value <0.001 means Vidaaryadi gana siddha ghrita is highly significant in controlling Nasasrava/Rhinorrhoea in Group A patients.

In Group B the above symptom's (Nasasrava/Rhinorrhoea) Before treatment Mean ± S.D is 2.1 ± 0.5525 and After treatment Mean ± S.D is 0.35 ± 0.4894, whose P value <0.001 means Cetirizine Hcl is highly significant in controlling Nasasrava/Rhinorrhoea in Group B patients. After complete duration of treatment, the above symptom was relieved in 97.87% patients of Group A and 83.33% patients of Group B.

In Group A the above symptom's (Nasavarodh/Blocking of nose) Before treatment Mean ± S.D is 1.9 ± 0.44 and After treatment Mean ± S.D is 0.35 ± 0.48, whose P value <0.001 means Vidaaryadi gana siddha ghrita is highly significant in controlling Nasavarodh/Blocking of nose in Group A patients.

In Group B the above symptom's (Nasavarodh/Blocking of nose) Before treatment Mean ± S.D is 1.9 ± 0.44 and After treatment Mean ± S.D is 0.3 ± 0.47, whose P value <0.001 means Cetirizine Hcl is highly significant in controlling Nasavarodh/Blocking of nose in Group B patients. After the complete duration of treatment, the above symptom was relieved in
81.57% patients of Group A and 84.21% patients of Group B.

In Group A the above symptom's (Shirovyatha/Headache) Before treatment Mean ± S.D is 1.7 ± 0.4702 and After treatment Mean ± S.D is 0.35 ± 0.4894, whose P <0.001 means Vidaaryadi gana siddha ghrita is highly significant in controlling Shirovyatha/Headache in Group A patients.

In Group B the above symptom's (Shirovyatha/Headache) Before treatment Mean ± S.D is 1.8 ± 0.4104 and After treatment Mean ± S.D is 0.3 ± 0.4702, whose P<0.001 means Tab. Cetirizine hcl is highly significant in controlling Shirovyatha/Headache in Group B patients.

After the complete duration of treatment, the above symptom was relieved in 79.41% patients of Group A and 83.33% patients of Group B.

Table No. 4 Comparison between Two Group w.r.t Symptoms Score of Vataj Pratishyaya

<table>
<thead>
<tr>
<th>No</th>
<th>Symptoms</th>
<th>Mean ± SD</th>
<th>Sum of Rank</th>
<th>p Value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Group-A</td>
<td>Group-B</td>
<td>Gr-A</td>
</tr>
<tr>
<td>1</td>
<td>Kshavathu (Excessive Sneezing)</td>
<td>0.95±0.22</td>
<td>0.95±0.22</td>
<td>19</td>
</tr>
<tr>
<td>2</td>
<td>Nasa Srava (Rhinorrhoea)</td>
<td>1.85±0.58</td>
<td>1.75±0.44</td>
<td>37</td>
</tr>
<tr>
<td>3</td>
<td>Nasavarodh (Blocking of Nose)</td>
<td>1.55±0.51</td>
<td>1.60±0.50</td>
<td>31</td>
</tr>
<tr>
<td>4</td>
<td>Shirovyatha (Headache)</td>
<td>1.35±0.48</td>
<td>1.50±0.51</td>
<td>27</td>
</tr>
</tbody>
</table>

Comparison between Two Group w.r.t Symptoms Score:

The Difference between before treatment and after treatment score of both groups compared by ‘Mann-Whitney U Test’.

In comparative study in symptom, Kshavathu/Excessive sneezing, Group A After Treatment Mean ± S.D is 0.95 ± 0.2236 and Group B After Treatment Mean ± S.D is 0.95 ±0.2236 shows both the treatments are equally effective in controlling Kshavathu/Excessive sneezing and are highly significant & there is no significant difference in the treatment of both Groups.

In symptom, Nasasrava/Rhinorrhoea, Group A After treatment Mean ± S.D is 1.85 ± 0.5871 and Group B After Treatment Mean ± S.D is 1.75 ± 0.4443 shows both the treatments are equally effective in controlling Nasasrava/Rhinorrhoea and are highly significant & there is no significant difference in the treatment of both Groups. In symptom’s Nasavarodh/Blocking of nose, Group A After Treatment Mean ± S.D is 1.55 ± 0.5104 and Group B After Treatment Mean ± S.D is 1.6 ± 0.5026 shows both the treatments are equally effective in controlling Nasavarodh/Blocking of nose and are
highly significant & there is no significant difference in the treatment of both Groups.

Similarly in symptom Shirovyatha/Headache, Group A After Treatment Mean ± S.D is 1.35 ± 0.4894 and Group B After Treatment Mean ± S.D is 1.5 ± 0.513 shows both the treatments are equally effective in controlling Shirovyatha/Headache and are highly significant & there is no significant difference in the treatment of both Groups.

DISCUSSION:
The condition in which Kapha, Pitta and Rakta move along with Vata in the same direction is termed as Pratishyaya. Allergic rhinitis is increasing day by day due to various factors and the patients are routinely found in an E.N.T OPD. Today satisfactory medicinal treatment is not available in other medical sciences. In modern medical science various antiallergic, anti-histaminic drugs, cortico steroids are used systemically and locally in the form of nasal drops in allergic rhinitis. Basically, the causative factors of pratishyaya disease led to all other Nasa rogas. Also, the systemic causes such as depression, debility, chronic diseases like Syphilis, Tuberculosis, Trauma, Allergy decreases the immunity of Nasal mucous membrane.[8] This also leads to a small vitiation of doshas leads to disease. Out of 40, maximum patient belongs to the age group of 21 to 30 years i.e.,14 (35%), are having more incidence of Vataj pratishyaya (Allergic rhinitis). The reasons may be the pollution, hanging climatic conditions, long driving without helmet, more exposure to air borne pollen, fungal spores, dust and animal danders etc. The statistical analysis based on qualitative data reveals that both the treatments are equally effective i.e., both treatment groups show highly significant relief in the signs and symptoms of Vataj pratishtyaya (allergic rhinitis). Group A therapy is equally effective as Group B in reducing the signs and symptoms in patients of Vataj Pratishyaya (Allergic Rhinitis). However, both the therapies have their limitations due to the recurrent nature of the disease as it is allergic and acute in origin. No side effects were observed during and after the treatment with both the therapies. The exact mechanism of action of Vidaaryadi gana siddha ghrita after systemic use, can be subject for further study.

CONCLUSION:
Vidaaryadi Gana Siddha Ghruta and Tab. Cetirizine 10 mg are equally effective after the period of treatment of 10 days and statistically both are highly significant. Vidaaryadi Gana Siddha Ghruta can be administered in Pratishay Vyadhi as it has no side effects as like cetirizine or it can be a best adjuvant therapy in the management of Vataj pratishyaya.

REFERENCES:


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Conflict of interest : Nil