Clinical Study

Clinical Evaluation of Pippalyadi Gandusha and Phalatrikadi Kwatha In The Management of Tundikeri W.S.R. To Tonsillitis

*Dr. Anubha Jain, **Prof. Shamsa Fiaz

Abstract

Tonsillitis though not is life threatening but troublesome and irritating disease reducing the quality of life of an individual in day to day activity. It is an infectious condition but if left untreated, may leads up to severe local and systemic complications like otitis media, sinus infections, peritonsillar abscess, Rheumatic fever, glomerulonephritis, etc. That’s why it is important to pay attention towards this difficult disease.

In present study 44 patients of Tundikeri (tonsillitis) were studied into two groups. In group-I, patients were advised Pippalyadi Gandusha and in group-II, patients were advised Pippalyadi Gandusha and Phalatrikadi Kwatha orally. Better relief was observed in group II which received combined treatment followed by group I which received only Gandusha therapy, except in case of Paka (where group-I showed better result than group-II).

Key Words : Tundikeri, Tonsillitis, Pippalyadi, Gandusha, Phalatrikadi.

Sarasang:

तुंडकेरी प्राणहर व्याधि नहीं है किंतु यह एक संक्रामक अवस्था है जिसका उपचार नहीं करने पर स्थायी एवं सावधानिक उपद्रव यथा कर्णेश, गलीविर्ध, सन्धिज्वर, गलशोथ, पाक आदि हो सकते हैं।

प्रस्तुत शोध कार्य में तुंडकेरी के 44 रोगियों को दो समूहों I एवं II में विभाजित कर पिप्पल्यादी गांधुश एवं फालट्रिकादी क्वथ का उपयोग किया गया। मिश्रित चिकित्सा वाले समूह II के रोगियों में अधिक सार्थक परिणाम प्राप्त हुए एवं केवल पाक में गांधुश चिकित्सा (समूह I) से अधिक सार्थक परिणाम प्राप्त हुए।

5 Sushruta; Sushruta Samhita with Nibandha Samgraha commentary of Dalhana; Ed. Y.T. Acharya; Chaukhamba; 2006; Uttar Tantra, 44th Chapter, Verse no. 20.
6 Vagbhata; Ashtang Hridaya with commentary Sarvangasundarnda of Arunadatta & Ayurveda Rasayana of Hemadri; Ed. Pandit Hari Sadashiv SastrI Paradakar, Choukhamba Sanskrita Sansthan, 2010; Uttar Tantra; 40th Chapter, Verse no. 48.
9 The Ayurvedic Pharmacopeia of India; Pub. Govt. of India, Ministry of Health & F.W., Dept. of AYUSH, part 1st volume IV pg. no.117.
10 Agnivesh; Caraka Samhita with Ayurveda Dipika commentary of Chakrapani Dutta; Ed. Y.T.Acharya; Sutra Sthana, Chapter 26/13; Rashtriya Samskrita Samsthan;2006.
Clinical Study

Clinical Evaluation of Pippalyadi Gandusha and Phalatrikadi Kwatha In The Management of Tundikeri W.S.R. To Tonsillitis

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Introduction:

In daily practice we come across many patients of Tundikeri i.e. tonsillitis. According to NHIS95 (National Health Interview Survey on Disability) the occurrence rate of chronic tonsillitis is 7 per 1000.

According to Sushruta Tundikeri is disease which is characterized by Sthula Shopha, Toda, Daha, Paka in Talu Pradesha and involving Dosha and Dushya are Kapha and Rakta. According to Acharya Vagbhata it is characterized by Kathina Shopha, Manda Ruka, Pichchila Srawa and its shape resembling to Karpasiphal, and site of origin is Hanusandhi AshritaKantha Pradesha i.e. root of the temporo-mandibular joint.

A similar disease, which can be correlated to Tundikeri based on the signs and symptoms in the modern system of medicine, is tonsillitis. This is mainly a disease of childhood but is also frequently seen in adults. This is one of the diseases of the Mukha which compels the patient to feel uneasy, restless and sometimes bed-ridden if complications occur. It is characterized by sore throat, difficulty in swallowing, fever, otalgia, trismus, halitosis (foul breath) and constitutional symptoms such as anorexia, headache, general body ache, malaise and constipation.

A range of therapies from different medical faculties work on this disease, with either limited success or time bond relief and also having various limitations, side effects, including allergic reactions. If all these measures fails otolaryngologist suggests removing the tonsils i.e. tonsillectomy which also having minimal results.

According to Acharya Vagbhata drug which mainly includes Katu, Tikta Rasa and Ushna, Teeksha Guna can be use in Tundikeri. The drugs in this study are having these properties along with analgesic & anti inflammatory effect. The procedure of Gandusha is also adapted to study the localized action of drug.

Considering all these needs, it has been decided to contribute little effort to manage this problem. Hence an attempt had been made to evaluate the efficacy of Pippalyadi Gandusha and Phalatrikadi Kwatha in Tundikeri.

So, the disease Tundikeri i.e. tonsillitis is selected for the clinical trial.

Aims And Objectives:

Aims:
1. To find out an Ayurvedic medicinal treatment for tonsillitis.
2. To evaluate the efficacy of Pippalaydhi Gandusha and along with internal administration of Phalatrikadi Kwatha in Tundikeri.

Objectives:
1. To explore the literature and to provide a correlation between Tundikeri and tonsillitis.
2. To abolish tonsillitis.
3. To reduce the frequency and severity of recurrent throat infection.
4. To avoid complications of tonsillitis.
5. To preclude for future surgery.

Material And Methods:

In the present study, 44 clinically diagnosed patients of Tundikei (tonsillitis) were selected and randomly divided into two groups. Patients attending the O.P.D. and I.P.D. of N.I.A. were screened having the signs and symptoms of Tundikeri.
**i) Inclusion criteria:**

1. Clinically diagnosed patients of tonsillitis (*Tundikeri*)
2. Any individual above 8 yrs and below 50 yrs of age were selected irrespective of sex, occupation, chronicity, caste etc.

**ii) Exclusion criteria:**

1. Patients with peritonsillar abscess, parapharyngeal abscess, tonsillar lith, tonsillar cyst and other complications were excluded from the study.
2. Patients having any severe systemic disease like T.B., Diabetes and Hypertension etc. and tonsillitis associated with malignancy were excluded.
3. Patients using any other systemic drugs which may alter the result of the study.

**iii) Grouping of patients:**

In the present study 44 clinically diagnosed patients of *Tundikeri* (Tonsillitis) were selected and randomly divided into two groups (Group-I-21 patients, Group-II-23 patients) out of these 44 patients 40 patients completed the trial.

- **a) Group-I:** *Pippalydi Gandusha* in required quantity twice daily on empty stomach.
- **b) Group-II:** *Pippalydi Gandusha* in required quantity twice daily on empty stomach and *Phalatrikadi Kwatha* 30 ml twice daily after meal.

**iv) Duration of Trial:** 15 days

**v) Follow up:** All the patients were followed up once a week for a period of one month.

**Criteria Of Assessment:**

Both subjective and objective parameters were employed for the assessment of the effect of the treatment.

**Subjective criteria: It includes -**

1. *Daha* / burning sensation in throat
2. *Toda* / pricking pain
3. *Galoparodha* / dysphagia
4. Halitosis (Bad Breath)

**Objective criteria: It consists-**

1. *Paka* / pus formation in tonsils
2. *Ragatwa* / congestion in anterior pillar and pharyngeal mucosa
3. Enlarged lymph nodes (jugulodigestive lymph nodes)
4. *Shopha* / pictogram presentation of tonsillar hypertrophy

**C. Laboratory investigations:**

Hb gm%, TLC, DLC and ESR were advised to all the patients to rule out any severe pathology and to note the changes, if any.

After trial non-significant results were observed in maximum parameters and in inter group comparison insignificant results were found in all parameters.

**Statistical Analysis**

The information regarding demographic data was given in percentage. The scoring of criteria of assessment was analyzed statistically in terms of mean values of B.T. (Before Treatment), A.T. (After treatment), S.D. (Standard Deviation) and S.E. (Standard Error). The results obtained were considered Extremely Significant for p value <0.0001, Very significant for <0.001, significant for p value <0.01 and insignificant for p value >0.05.

**In individual I and II group –**

Wilcoxon matched pairs signed ranks test were performed for nonparametric data.

**In intergroup comparison between I and II group –**

Mann Whitney test for nonparametric data.

**Observation And Results:**

Total 44 patients were registered in clinical study; amongst them 40 patients completed the treatment and 4 patients discontinued the treatment. So some important observation of 44 patients and results of 40 patients are given below.

**Observations:**

- Maximum number of patients were in the of age group of 22-29 years (38.63%), males (54.54%), unmarried (63.63%), Hindu (70.45%), educated up to Primary and secondary class (27.27%), belonged
to middle class (54.54%), students (56.81%), urban (72.72%) Majority of patients had Vata-Kaphaja (52.27%), and Rajasika prakriti (56.81%).

- Majority of patients had Vishama Dietetic habits (65.90%) and sound sleep (65.90%).

- Maximum no. of patients showed Madhyama Vikriti, Sara, Samhanana, Pramana, Satva, Satmaya i.e. respectively 59.09, 63.63%, 56.81%, 54.54%, 59.09%, 65.90%.

- Majority of patients 65.90% had gradual onset of disease, 50% patients had disease from more than one year, cold as an aggravating factor observed in 61.36% patients.

- Fever were present in 25% patients, retraction of tympanic membrane present in 61.36% patients, pain in ear found in 59.09% patients, loss of appetite present in 43.16% patients and complain of malaise were found in 54.54% patients.

- Symptom of Shopha was found in 100% patients, 79.54% patients had Daha, 81.81% patients had Toda, 45.45% patients had Paka, 88.63% patients had Ragatwa, 79.54% patients had Galoparodha, 61.36% patients had Hallitosis & only 31.81% patients had Jugulo-digastric lymphadenopathy.

Results:

Table No. I: Showing effect of therapy in subjective parameters in Group-I

<table>
<thead>
<tr>
<th>S No</th>
<th>Symptoms</th>
<th>Mean</th>
<th>Dif.</th>
<th>% of Change</th>
<th>SD</th>
<th>SE</th>
<th>W</th>
<th>P</th>
<th>Results</th>
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</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>BT</td>
<td>AT</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>1</td>
<td>Daha</td>
<td>1.4</td>
<td>0.55</td>
<td>0.85</td>
<td>60.71</td>
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<td>ES</td>
</tr>
<tr>
<td>2</td>
<td>Toda</td>
<td>1.55</td>
<td>0.6</td>
<td>0.95</td>
<td>61.29</td>
<td>0.153</td>
<td>120</td>
<td>&lt;0.0001</td>
<td>ES</td>
</tr>
<tr>
<td>3</td>
<td>Galoparodha</td>
<td>1.8</td>
<td>0.55</td>
<td>1.25</td>
<td>69.44</td>
<td>0.142</td>
<td>171</td>
<td>&lt;0.0001</td>
<td>ES</td>
</tr>
<tr>
<td>4</td>
<td>Halitosis</td>
<td>0.8</td>
<td>0.3</td>
<td>0.5</td>
<td>62.5</td>
<td>0.135</td>
<td>45</td>
<td>0.0039</td>
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Table No. II: Showing effect of therapy in objective parameters in Group-I

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<th>S No</th>
<th>Symptoms</th>
<th>Mean</th>
<th>Dif.</th>
<th>% of Change</th>
<th>SD</th>
<th>SE</th>
<th>W</th>
<th>P</th>
<th>Results</th>
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<tbody>
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<td>AT</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Raga</td>
<td>2.15</td>
<td>0.45</td>
<td>1.7</td>
<td>79.06</td>
<td>0.127</td>
<td>210</td>
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<td>ES</td>
</tr>
<tr>
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<td>Paka</td>
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<td>0.3</td>
<td>60</td>
<td>0.105</td>
<td>21</td>
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<td>Lymphadenopathy</td>
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<td>0.25</td>
<td>0.2</td>
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<td>0.091</td>
<td>10</td>
<td>0.125</td>
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<tr>
<td>4</td>
<td>Shopha</td>
<td>1.95</td>
<td>0.8</td>
<td>1.15</td>
<td>58.97</td>
<td>0.081</td>
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Table No. III: Showing effect of therapy in subjective parameters in Group-II

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<th>Dif.</th>
<th>% of Change</th>
<th>SD</th>
<th>SE</th>
<th>W</th>
<th>P</th>
<th>Results</th>
</tr>
</thead>
<tbody>
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<td></td>
<td></td>
<td>BT</td>
<td>AT</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Daha</td>
<td>1.6</td>
<td>0.55</td>
<td>1.05</td>
<td>65.62</td>
<td>0.184</td>
<td>105</td>
<td>0.0001</td>
<td>ES</td>
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<tr>
<td>2</td>
<td>Toda</td>
<td>1.7</td>
<td>0.6</td>
<td>1.1</td>
<td>64.7</td>
<td>0.143</td>
<td>153</td>
<td>&lt;0.0001</td>
<td>ES</td>
</tr>
<tr>
<td>3</td>
<td>Galoparodha</td>
<td>1.8</td>
<td>0.5</td>
<td>1.3</td>
<td>72.22</td>
<td>0.179</td>
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<td>ES</td>
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<td>4</td>
<td>Halitosis</td>
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<td>0.7</td>
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<td>0.146</td>
<td>78</td>
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Table No. IV: Showing effect of therapy in objective parameters in Group-II

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<th>S No</th>
<th>Symptoms</th>
<th>Mean (BT)</th>
<th>Dif. (AT)</th>
<th>% of Change</th>
<th>SD</th>
<th>SE</th>
<th>W</th>
<th>P</th>
<th>Results</th>
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<tbody>
<tr>
<td>1</td>
<td><em>Raga</em></td>
<td>1.95</td>
<td>0.3</td>
<td>1.65</td>
<td>84.61</td>
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<td>190</td>
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<tr>
<td>2</td>
<td><em>Paka</em></td>
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<td>0.3</td>
<td>0.35</td>
<td>53.84</td>
<td>0.49</td>
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<td>28</td>
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<td>4</td>
<td><em>Shopha</em></td>
<td>1.8</td>
<td>0.55</td>
<td>1.25</td>
<td>69.44</td>
<td>0.64</td>
<td>0.14</td>
<td>171</td>
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Table No. V: Intergroup comparison of subjective parameter of *Tundikeri*

<table>
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<tr>
<th>S. No</th>
<th>Symptoms</th>
<th>Mean</th>
<th>SD</th>
<th>SE</th>
<th>U</th>
<th>P</th>
<th>Results</th>
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<td></td>
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<td>G_A</td>
<td>G_B</td>
<td>G_A</td>
<td>G_B</td>
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</tr>
<tr>
<td>1</td>
<td>Daha</td>
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<td>0.587</td>
<td>0.825</td>
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<td>0.64</td>
<td>0.153</td>
<td>0.143</td>
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<td>3</td>
<td>Galoparodha</td>
<td>1.25</td>
<td>1.3</td>
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<td>0.809</td>
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<td>Halitosis</td>
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<td>0.607</td>
<td>0.656</td>
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<td>0.146</td>
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Table No. VI: Intergroup comparison of objective parameter of *Tundikeri*

<table>
<thead>
<tr>
<th>S. No</th>
<th>Symptoms</th>
<th>Mean</th>
<th>SD</th>
<th>SE</th>
<th>U</th>
<th>P</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>G_A</td>
<td>G_B</td>
<td>G_A</td>
<td>G_B</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td><em>Raga</em></td>
<td>1.7</td>
<td>1.65</td>
<td>0.571</td>
<td>0.67</td>
<td>0.127</td>
<td>0.15</td>
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<td>0.489</td>
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<td>0.109</td>
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<td>Lymphadenopathy</td>
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<td>0.41</td>
<td>0.444</td>
<td>0.091</td>
<td>0.099</td>
</tr>
<tr>
<td>4</td>
<td>Shopha</td>
<td>1.15</td>
<td>1.25</td>
<td>0.366</td>
<td>0.638</td>
<td>0.081</td>
<td>0.142</td>
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</tbody>
</table>

Table No. VII: Shows % wise improvement of signs and symptoms in both groups

<table>
<thead>
<tr>
<th>S.N.</th>
<th>Cardinal Symptoms</th>
<th>Result In Percentage</th>
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<tbody>
<tr>
<td></td>
<td>GROUP-I</td>
<td>GROUP-II</td>
</tr>
<tr>
<td>1</td>
<td><em>Daha</em></td>
<td>60.71 ES</td>
</tr>
<tr>
<td>2</td>
<td><em>Toda</em></td>
<td>61.29 ES</td>
</tr>
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<td>3</td>
<td><em>Galoparodha</em></td>
<td>69.44 ES</td>
</tr>
<tr>
<td>4</td>
<td><em>Halitosis</em></td>
<td>62.5 VS</td>
</tr>
<tr>
<td>5</td>
<td><em>Ragatwa</em></td>
<td>79.06 ES</td>
</tr>
<tr>
<td>6</td>
<td><em>Paka</em></td>
<td>60 S</td>
</tr>
<tr>
<td>7</td>
<td>Lymphadenopathy</td>
<td>44.44 NS</td>
</tr>
<tr>
<td>8</td>
<td>Shopha</td>
<td>58.97 ES</td>
</tr>
<tr>
<td></td>
<td>Average % of relief</td>
<td>62.05 ES</td>
</tr>
</tbody>
</table>
Discussion:

Effect of therapy on assessment criteria:

Statistically Extremely Significant relief were found in Daha, Toda, Galoparodha, Ragatwa, Shopha in both groups while in Paka significant result was found in both groups. In halitosis Group-I showed very significant result while Group-II showed Extremely Significant results. In lymphadenopathy not significant results were observed Group-I while in Group-II not quite significant results were observed.

Inter group comparison:

In comparative study over criteria’s of assessment statistically insignificant difference was observed between two therapies in all assessment criteria.

Average percentage of relief:

Comparing the symptomatic improvement in both groups it was found that average percentage of relief was higher in ‘Group-II’ i.e. 68.49%, followed by ‘Group-I’ i.e. 62.05%. It shows that effect of therapy was a little more in Group-II in comparison to Group-I.

It is clear from the above description that in Group-II where internal administration of drug were used along with local treatment showed better results; it may be due to the drug administered internally alleviate the generalized pathology in the Dhatus of the body as it gets circulated through vascular system and there by nourished the depleted Dhatus anywhere in the body.

Acharya Vagbhata said that the substances which taste Katu is valuable in the treatment of Galaroga. The disease Tundikeri is having predominant Kapha Dosha and vitiated Rakta Dhatu, we need to adopt Kapha Shamaka Chikitsa in the management of Tundikeri. When we go through all properties of raw materials used for preparation of Pippalyadi Kwatha Gandusha and Phalatrikadi Kwatha there are dominance of Katu (pungent) Rasa followed by Kashaya Rasa and Katu Vipaka which are having Kapaha Shamaka properties. Kashya Rasa also have Raktapitta Shamaka, Sheeta, Sanshamana, Vrana Ropaka therefore it is useful in Rakta Shamana also.

As Gandusha is a local procedure and the drug applied locally attains its maximum effect on the disease site get absorbed easily and faster, shows speedy recovery without exposing rest of the body.

Therefore these drugs showed there effect on the disease tonsillitis.

Conclusion:

- The disease Tundikeri which is described in Ayurvedic classics can be considered as tonsillitis an inflammatory condition of tonsils in which multifocal etiology combine together to lower the immunity of the body and leads to tonsillitis.
- In comparative analysis insignificant results were observed in all assessment parameters which show that there is no statistical difference in efficacy of both treatments.
- Comparing the symptomatic improvement in both groups it was found that overall relief was highest in Group-II which received combined treatment followed by Group-I which received only Gandusha therapy, except in case of Paka (where Group-I shows better result than Group-II). Hence it can be concluded that combined use of Pippalyadi Gandusha and Phalatrikadi Kwatha is more effective for controlling the disease Tundikeri than the Gandusha therapy alone.
- The symptoms like Ragatwa, halitosis and Galoparodha showed considerable results. In Shopha, Toda, Daha good improvement was observed while Paka and lymphadenopathy showed mild improvement.
- Thus it can be concluded that this formulation is effective in management of Tundikeri.

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Clinical Study

Evaluation of antipyretic activity of *Agnikumara Rasa* in albino rats

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Abstract:

“Jwara is the foremost among the diseases”. It afflicts the body, the senses and the mind. It is the first to be manifested among all the diseases. The present study intends to evaluate the scientific basis for the antipyretic efficacy of specific formulation *Agnikumara Rasa*. This study deals with the dose related efficacy of *Agnikumara Rasa*. Three groups of albino rats named as test Group 1, test Group 2 and test Group 3 with a given dose of 11.25 mg/kg, 22.50 mg/kg and 32.75 mg/kg respectively were studied with control and standard group (Paracetamol) by using yeast induced pyrexia method. Rectal temperatures were recorded before and after inducing pyrexia at interval of one hour for four hours. The Ayurvedic formulation *Agnikumara rasa* at dose of 32.75 mg / kg body weight was reported to have a maximum and safe antipyretic efficacy and showed similar effect to that of standard group Paracetamol.

Key words: Jwara, Agnikumara rasa, antipyretic efficacy, yeast induced pyrexia.

सारांश–

ज्वर सभी रोगों में अग्रणी रोग है। यह शरीर इंद्रियों तथा मन को प्रभाव करता है। ज्वर मात्र अपने सहभाग को आत्महत्या के रूप में लागू होता है। ज्वर अविभाजित रोग को संबंधित ज्वर-प्रभाव का वैज्ञानिक मूल्यांकन करता है। यह अद्वितीय अविभाजित रोग की मात्रा संबंधित अवस्थिता से संबंधित है। पशुधनी चीड़ों के तीन समूहों से समूह अ, समूह ब तथा समूह स को क्रमशः 11.25 मिग्रा/किग्रा, 22.50 मिग्रा/किग्रा तथा 32.75 मिग्रा/किग्रा मात्रा दी गई तथा इस्लिए यीस्ट प्रेरित ज्वर की विधि के द्वारा अंतःसेवा समूह (योरस्ट) तथा स्टेपरड़ समूह (पेस्टिटामॉल) के साथ तुलनात्मक अन्यर्थ निर्धारित किया गया। ज्वर प्रति खुश भरे से 1–1 घंटे के अंतराल पर 4 घंटे तक गुरु का तापमान भावना गया। यह मापा गया कि 32.75 मिग्रा/किग्रा मात्रा अधिकतम ज्वर-प्रभाव का सम्बंधित सृंchter को गयी तथा इससे मानक समूह के तुल्य प्रभाव दिखाया।

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