CLINICAL STUDY OF EFFICACY OF VATSAKADI YOGA IN PRAVAHIKA

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ABSTRACT

Background: Today's busy scheduled and fast lifestyle is prone for many gastrointestinal disorders. People use to take fast food, junk food. Also due to lack of exercise and sedentary work digestion tends to be hampered. Mental stress is also one of the main reason behind it. Pravahika (Amoebiasis) is one of the major disease of gastrointestinal tract. Due to Nitya hetusevana (aetiological factors), Pravahika recurrence is more although antibiotics are widely and routinely used for its management. In Ayurveda various modalities are given but Vatsakadi yoga is supposed to give major relief with respect to signs and symptoms of Pravahika.  

Aim: To evaluate the efficacy of Vatsakadi yoga in Pravahika.  

Materials and Methods: It was an open randomized parallel group trial. Total 30 patients were treated out of which 15 patients were treated with Vatsakadi yoga and 15 patients with standard drug Balbilva choorna. Results & Conclusion: Individually both groups have given relief in cardinal signs and symptoms of Pravahika. While comparing, it was also statistically proved that Vatskadi yoga is more effective in the management of Pravahika than Balbilva choorna with respect to signs and symptoms of Pravahika.

KEYWORDS: Pravahika, Amoebiasis, Vatsakadi yoga, Balbilva choorna.

INTRODUCTION

Today's life is busy scheduled and fast styled life. People do not have enough time to pay attention to their food and habits. They use to take fast food, junk food, ready food which is more oily, spicy and contaminated. Also use of cold drinks and carbonated beverages causes gastrointestinal upsets. Due to heavy physical and mental work they have more physical and mental stress and also disturbances in sleep. So they suffer from variety of diseases esp. gastrointestinal disorders. Pravahika is one of these diseases. Prolonged and frequent use of antibiotics and other modern drugs acting on GI tract causes loss of appetite, acidity and many other side effects. I have seen many patients of Pravahika having better response to Ayurvedic treatment in our institute.

Vatsakadi yoga is described in Ayurvedic texts by various Acharyas. It is specially described in Sushrut Samhita[1] and Ashtang Hridayam.[2] It is included in Kaphaja Atisara by Acharya Charaka.[3] Various methods used in the treatment of Pravahika are; Bheshaja, Basti etc. Urgency and frequency of defecation, Sakapaka malapravrutti, Abdominal pain, Pravahanam (Tenesmus), Krutepi akrut saudnyata, Daurbalya, Aruchi, Avipak, Glani, Angasad[4] are the symptoms observed in Pravahika-Vatsakadi yoga[5] is described in Sushrut Samhita (Uttar tantra 40/154).

It may be correlated with Amoebiasis[6,7,8] according to modern science. Hence considering above facts this study was planned with aim and objectives to evaluate the efficacy of Vatsakadi yoga in the management of Pravahika.

Aim and Objectives: To evaluate the efficacy of Vatsakadi yoga in the management of Pravahika.

Materials and Methods

Study population

Patients fulfilling the criteria for the diagnosis of the disease were registered for the present study between the age group of 10 to 50 years irrespective of sex, religion, occupation etc. 30 patients were selected from outpatient department of Kayachikita, S S N Jain Rugnalaya, Solapur. They were divided into two equal groups randomly.

Sample frame

a. Study design: Randomized clinical trial  
b. Sample size: 30 patients (15 in each group)  
c. Period of study: 18 months  
d. Selection of patients: As per inclusion and exclusion criteria.

e. Study setting: SSN Jain Rugnalaya, Solapur, Maharashtra.

Criteria for Diagnosis

The criteria of the diagnosis were mainly based on signs and symptoms of Pravahika. The detailed systemic examination was carried out. In support, pathological examination like CBC and Stool examination were carried out for diagnosis and to ensure results.

Criteria for selection of patients

Inclusion criteria

Patients between the age group of 10 to 50 years having cardinal signs and symptoms like Urgency and frequency of defecation, Sakapaka malapravrutti, Abdominal pain, Pravahanam (Tenesmus), Krutepi akrut saudnyata, Daurbalya, Aruchi, Avipak, Glani, Angasad were selected for the study.
Exclusion criteria
Children below 10 years and old age above 50 years, patients with Gudabhransha (Rectal prolapse) and other chronic intestinal pathologies were excluded.

Laboratory Investigations
CBC, Stool examination and Mala parikshanam[9](according to Ayurveda).

Drug preparation
Vatsakadi yoga was prepared in the pharmacy of S N Jain Rugnalaya, Solapur, by mixing equal parts of fine choorna of ingredients that means Patha (Cissampeloue pareira), Ajmoda (Carum roxburghianum), Kutoja (Holarrhena antidysenterica), Shunthi (Zinziber officinale), Pippali (Piper longum) and Nilkamal (Nymphaea lotus).

Drug intervention
Group A (Experimental)
Patients were treated with Vatsakadi yoga with the dose of 1gm thrice a day before meal with Anupan of Kashya jal for 35 days. Follow up on every 7th day was scheduled.

Group B (Standard)
Patients were treated with Balibila choorna (Aegle marmeoclus) with the dose of 1gm thrice a day before meal with Anupan of Kashya jal for 35 days. Follow up on every 7th day was scheduled.

Criteria for Assessment
Both pre and post assessments of the patients were done on the basis of clinical symptoms [10].

- Pravahanam (Tenesmus)
- Malaprarvritti Samkhya/Vega (Frequency of defecation)
- Malaprarvritti Matra (Stool quantity)
- Pureesha Swaroop (Consistency)
- Sashonit Malaprarvritti (Presence of blood in stool)
- Udarshool (Abdominal pain)
- Agnimandya (Loss of appetite)
- Udar sparshasahatva (Abdominal tenderness)

Assessment parameters Gradation with score

Pravahanam

- Grade-(0) - No Pravahana
- Grade-(+)- Alpa sashool pravahana with some quantity of mala (Alpa Malaprarvritti)
- Grade-(++)- Tolerable Sashool pravahan with every Malaprarvritti
- Grade-(+++)- Nontolerable Sashool pravahan with every Malaprarvritti

Malaprarvritti Samkhya/Vega/Frequency of defecation

- Grade-(0) - 0.1 or 2 Daily
- Grade-(+) - 3 to 6 Daily
- Grade-(++) - 7 to 12 Daily
- Grade-(+++)-13 or more than that-Daily

Malaprarvritti Matra

- Grade-(0) - Prakrut
- Grade-(+)- Less than Prakrut but more than alpamatra
- Grade-(++)- Alpamatra
- Grade-(+++)- Atyalpa or no Pureesha (only Kapha present)

Pureesha Swaroop (Consistency)

- Grade-(0) - Without Shleshma / Prakrut
- Grade-(+)- Sashlesha malaprarvritti in some of the Vegas
- Grade-(++) - Every Vega of Malaprarvritti is Sashlesha but Shleshma is Alpa.
- Grade-(+++)- Every Vega of Malaprarvritti is Sashlesha with more Shleshma and Alpa pureesha.

Sashonit Malaprarvritti (Presence of blood in stool)

- Grade-(0) - Absence of Rakta
- Grade-(+)-Alpa matra of Rakta present in some Vegas of Malaprarvritti.
- Grade-(++) - Alpa matra of Rakta present in every Vegas of Malaprarvritti.
- Grade-(+++)- Bahu matra of Rakta present in every Vegas of Malaprarvritti.

Udarshool / Abdominal pain

- Grade-(0) - No Abdominal pain
- Grade-(+)-Alpa udarshool only at the time of Malaprarvritti
- Grade-(++)- Tolerable Udarshool present at the time of Malaprarvritti and between the two Vegas of Malaprarvritti.
- Grade-(+++)- Persistent and nontolerable Udarshool present. Worst at the time of every Malaprarvritti.

Agnimandya

- Grade-(0) - Prakrut / Udarlaghavata within 3 hrs. after meal
- Grade-(+)-Udarlaghavata within 4 hrs. after meal
- Grade-(++)- Udarlaghavata within 6 hrs. after meal
- Grade-(+++)- No Udarlaghavata after meal

Udar sparshasahatva (Abdominal tenderness)

- Grade-(0)-Absent
- Grade-(+)- Tenderness with Ati udarpeedan-Deep tenderness
- Grade-(++)- Tenderness with Alpa udarPEEDan-Superficial tenderness
- Grade-(+++)- Severe tenderness. Patient do not allow to touch the abdomen

STATISTICAL ANALYSIS AND INTERPRETATION

The subjective criteria were assessed before treatment and after treatment. The data obtained in clinical study is subjected to statistical test and analyzed in two parts as;
1. Unpaired ‘t’ test applied for Malaprarvritti samkhya (Frequency of defecation) [11]
2. Percentage of improvement in each parameter of each scale is calculated.
Criteria for the Assessment of the total effect of the therapy

Statistical Analysis

<table>
<thead>
<tr>
<th>Group</th>
<th>X</th>
<th>X²</th>
<th>N</th>
<th>(X- X*)²</th>
<th>S.D.</th>
<th>S.E.</th>
<th>T²</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>88</td>
<td>549</td>
<td>15</td>
<td>32.8</td>
<td>1.77</td>
<td>0.646</td>
<td>4.33</td>
</tr>
<tr>
<td>B</td>
<td>46</td>
<td>196</td>
<td>15</td>
<td>54.93</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

At t²₉₈ d.f. the highest obtainable value of ‘t’ at 0.1% level of significance is 3.67 as found on reference to ‘t’ table.

Calculated ‘t’ value = 4.33

Table ‘t’ value = 3.67

Hence p < 0.001

Thus we reject null hypothesis of no difference. Hence study is statistically significant. So there is no doubt that Vatsakadi yoga is highly effective.

Table 1: Showing percentage of the effect of treatments on Pravahanam

<table>
<thead>
<tr>
<th>Group</th>
<th>Effect of treatment on Pravahanam</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>93.33%</td>
</tr>
<tr>
<td>B</td>
<td>66.66%</td>
</tr>
</tbody>
</table>

While comparing Group A with Group B on the bases of % of efficacy of treatment after the whole course of treatment it was analysed that % of efficacy of treatment in Group A was 93.33% while in Group B it was 66.66% which suggest that Vatsakadi yoga is more effective than Balbilva choorna in relieving Pravahanam.

Table 2: Showing percentage of the effect of treatments on Malaprarvutti Samkhya/ Vega/Frequency of defecation

<table>
<thead>
<tr>
<th>Group</th>
<th>Effect of treatment on Malaprarvutti Samkhya/ Frequency of defecation</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>93.33%</td>
</tr>
<tr>
<td>B</td>
<td>40%</td>
</tr>
</tbody>
</table>

While comparing Group A with Group B on the bases of % of efficacy of treatment after the whole course of treatment it was analysed that % of efficacy of treatment in Group A was 93.33% while in Group B it was 40% which suggest that Vatsakadi yoga is more effective than Balbilva choorna in relieving Malaprarvutti Samkhya.

Table 3: Showing percentage of the effect of treatments on Malaprarvutti Matra

<table>
<thead>
<tr>
<th>Group</th>
<th>Effect of treatment on Malaprarvutti Matra</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>73.33%</td>
</tr>
<tr>
<td>B</td>
<td>66.66%</td>
</tr>
</tbody>
</table>

While comparing Group A with Group B on the bases of % of efficacy of treatment after the whole course of treatment it was analysed that % of efficacy of treatment in Group A was 73.33% while in Group B it was 66.66% which suggest that Vatsakadi yoga is more effective than Balbilva choorna in relieving Alpalpa malaprarvutti.

Table 4: Showing percentage of the effect of treatments on Pureesha Swaroop (Consistency)

<table>
<thead>
<tr>
<th>Group</th>
<th>Effect of treatment on Pureesha Swaroop (Consistancy)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>66.66%</td>
</tr>
<tr>
<td>B</td>
<td>53.33%</td>
</tr>
</tbody>
</table>

While comparing Group A with Group B on the bases of % of efficacy of treatment after the whole course of treatment it was analysed that % of efficacy of treatment in Group A was 66.66% while in Group B it was 53.33% which suggest that Vatsakadi yoga is more effective than Balbilva choorna in relieving Sashleshma malaprarvutti.

Table 5: Showing percentage of the effect of treatments on Sashonit Malaprarvutti (Presence of blood in stool)

<table>
<thead>
<tr>
<th>Group</th>
<th>Effect of treatment on Sashonit Malaprarvutti</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>100%</td>
</tr>
<tr>
<td>B</td>
<td>42.49%</td>
</tr>
</tbody>
</table>

While comparing Group A with Group B on the bases of % of efficacy of treatment after the whole course of treatment it was analysed that % of efficacy of treatment in Group A was 100% while in Group B it was 42.49% which suggest that Vatsakadi yoga is more effective than Balbilva choorna in relieving Sashonit malaprarvutti.

Table 6: Showing percentage of the effect of treatments on Udarshool / Abdominal pain

<table>
<thead>
<tr>
<th>Group</th>
<th>Effect of treatment on Udarshool</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>66.66%</td>
</tr>
<tr>
<td>B</td>
<td>60%</td>
</tr>
</tbody>
</table>

While comparing Group A with Group B on the bases of % of efficacy of treatment after the whole course of treatment it was analysed that % of efficacy of treatment in Group A was 66.66% while in Group B it was 60% which suggest that Vatsakadi yoga is more effective than Balbilva choorna in relieving Udarshool.
Table 7: Showing percentage of the effect of treatments on Agnimandya

<table>
<thead>
<tr>
<th>Group</th>
<th>Effect of treatment on Agnimandya</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>73.33%</td>
</tr>
<tr>
<td>B</td>
<td>66.66%</td>
</tr>
</tbody>
</table>

While comparing Group A with Group B on the bases of % of efficacy of treatment after the whole course of treatment it was analysed that % of efficacy of treatment in Group A was 73.33 % while in Group B it was 66.66% which suggest that Vatsakadi yoga is more effective than Balbilva choorna in relieving Agnimandya.

Table 8: Showing percentage of the effect of treatments on Udar sparshasahatva (Abdominal tenderness)

<table>
<thead>
<tr>
<th>Group</th>
<th>Effect of treatment on Udar sparshasahatva</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>66.66%</td>
</tr>
<tr>
<td>B</td>
<td>60%</td>
</tr>
</tbody>
</table>

While comparing Group A with Group B on the bases of % of efficacy of treatment after the whole course of treatment it was analysed that % of efficacy of treatment in Group A was 66.66 % while in Group B it was 60% which suggest that Vatsakadi yoga is more effective than Balbilva choorna in relieving Udar sparshasahatva.

RESULTS AND DISCUSSION

As per the assessment criteria Krutepi Akrut Saudnyata, Pravahanam, Malaprarvutti Samkhya/Vega/Frequency of defection, Malaprarvutti Matra, Pureesha Swaroop (Consistency), Sashonit Malaprarvutti (Presence of blood in stool), Udarshool/Abdominal pain, Agnimanda, Udar sparshasahatva (Abdominal tenderness) Vatsakadi yoga and Balbila choorna were found to be statistically and clinically effective in all parameters taken for assessment.

Table 9: overall effect of therapy

<table>
<thead>
<tr>
<th>Groups</th>
<th>Improvement</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No. of patients with complete remission</td>
</tr>
<tr>
<td>A</td>
<td>0</td>
</tr>
<tr>
<td>B</td>
<td>0</td>
</tr>
</tbody>
</table>

However considering overall results, as presented in table no. 8 we can see that Vatsakadi yoga (combination of Patha, Ajmoda, Shunthi, Pippali, Kutaj and Nilkamal) was found to be more effective in relieving signs and symptoms of PravahiKA as compared to Balbilva choorna alone.

The probable reason why the combination of Vatsakadi yoga became more beneficial than single Bilva choorna was the synergistic action of the contents. Drugs in the yoga have Vataghna, Kaphaghna, Pittaghna, Deepan-Panchan, Amapachan, Shoolhar, Vatanuloman, Raktastambhan, Anuloman, Shothahar, Krimighna and Jvaraghna properties. So when used Vatsakadi yoga as a main treatment, it is more effective clinically as well as statistically.

CONCLUSIONS

PravahiKA is one of the commonest diseases of Annavaha and Pureesvaha srotasas (Gastro intestinal tract). It produces various signs and symptoms due to vitiation of mainly Kledak kapha and Apan Vayu with Anubandh of Pachak pitta. It is Ashukari (acute) Vyadhi (disease) producing excessive weakness and Rasakshaya if not treated within proper time. Treatment responses of all the parameters were highly significant in experimental Group than Standard Group. Vatsakadi yoga is combination of Patha, Ajmoda, Shunthi, Pippali, Kutaj and Nilkamal and synergistic action of this combination is more effective clinically and statistically in reducing signs and symptoms of PravahiKA than only Balbilva choorna which is a standard drug taken for the study for comparison.

This study proves that Vatsakadi yoga, described in Sushrut Samhita, is very beneficial for treatment of PravahiKA.

REFERENCES


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