Clinical Study

A Comparative Study on Role of Shirodhara & Jatamamsi In The Management of “Vatika Shirah Shoola” W.S.R. To “Tension Head Ache”

*Dr. Sushanta Kumar Sahoo, **Prof. Ajay Kumar Sharma

Abstract

Vatika Shirahshoola (Tension Headache) is most common type of primary headache accounting 90% of all headaches and approximately 3% of the population suffer from chronic tension headache. It is produced due to contraction of the muscles of head & neck & psychological factors like stress and strain aggravates the condition. The incidence is more in the youngsters, computer operators, jewellerry workers. Total 43 diagnosed cases of Vatika Shirahshoola (Tension Headache) were selected for the present research work & divided into three groups. The patients of group-I were treated with Shirodhara with Dashamula Taila, patients of group-II were treated with Jatamamsi powder orally and patients of group – III were treated with tab. Amytryptiline orally. The trial drug Dashamula Taila and procedure Shirodhara showed highly significant reduction in symptoms like Ghata Sambidhyate (Cutting type of pain in posterior aspect of neck), Stavyate cha shirodhara (Tightness of muscles of neck), Sirah Sphurana (Pulsatile Veins in Head), Prakash Asahata (Photophobia) etc. in comparison to other two groups. Thus Shirodhara with Dashamula Taila is effective in the management of the Vatika Shirahshoola (Tension Headache).

Key Words : Vatika Shirahshoola, Shirodhara, Dashamula Taila, Tension Headache.

सारांश –
भीभी प्रकार के शिर:शूलों में वातिक शिर:शूल प्रमुख है। भीभी प्रकार के शिर:शूलों में 90 प्रतिशत वातिक शिर:शूल (Tension Headache) प्राण: पाटा जाता है एवं इस बिंदी से 3 प्रतिशत जनसंख्या अपेक्षाकृत अधिक पीड़ित है। यह बिंदी शिर, श्रीवा की मांस पेशियों के संकोच के कारण होती है एवं मानसिक कारण जैसे तनाव आदि इसको अधिक प्रभावित करते हैं। यह बिंदी प्राण: नवयुक्त, कम्प्यूटर आॅफ़ रोटी, जैलरी वर्कर्स में ज्यादातर पाई जाती है।

प्रस्तुत शोध कार्य में वातिक शिर:शूल के कुल 43 रोगियों का परीक्षण किया गया है और उन्हें 3 ग्रुप में विभाजित किया गया। ग्रुप-1 के रोगियों का दशमूल तेल शिरोधारा द्वारा उपचार किया गया। ग्रुप-2 के रोगियों को ज्यायाम्बी चौर खाने को दिया गया। ग्रुप-3 के रोगियों का Amytryptiline टेबलेट द्वारा उपचार किया गया। प्रथम ग्रुप के रोगियों में जिनका उपचार दशमूल तेल से शिरोधारा द्वारा किया गया, अन्य दो ग्रुपों कि अपेक्षा इन लक्ष्यों में यथा - घाटा सम्भवते (Cutting type of pain in posterior aspect of neck), स्तम्भते शिरोधारा (Tightness of muscles of neck), शिर: स्कुरन (Pulsatile veins in head), और प्रकाश असहत्व (Photophobia) में अधिक लाभ पाया गया है। अतः दशमूल तेल से शिरोधारा वातिक शिरोशूल (Tension Headache) की चिकित्सा में विशेष उपयोगी है।

* Ph.D. Scholar, ** Prof. & Head, P.G Deptt. of Kayachikitsa, NIA, Jaipur (Raj) -302002.
Introduction

Today the people of modern civilization have absolutely changed the concepts of diet, *Dinacharya*, *Ritucharya*, sleeping pattern and everything of their life styles leading to various disagreeable acute and chronic ailments. Due to frequent indulgence in *Mithya Aahara, Vihara* and *Paryapatradha* the incidence of various psychosomatic disorders are increasing very rapidly. Tension Headache is one of the frustrating acute/chronic illnesses, which is widespread in the population with varying severity.

Headache is one of the most common medical complaints of humankind. Headache itself is manifested as a disease as well as a symptom. Headache sufferers are the main purchasers of the 16,000 tones of Aspirin, much of the Acetaminophen, Ibuprofen, & sinus medications consumed yearly in United States. Headache is a leading cause of absence from work & accounts for loss of 150 million work days per year in United States only. The cost of lost labour hours is estimated to be as high as 17 billion dollars per year. Among different types of headache, Tension type headache, one of the primary headaches is found in more number of people in normal life. Though the etiology is not clear, it is postulated that contraction of the muscles of head and neck, some neurological disturbances causes this type of headache and psychological factors like anxiety, stress aggravate the condition. Hence persons having occupations like Computer operators, Official clerks, Bank employees etc. are mainly prone to suffer from this disorder.

Need of the study:

For the management of the disease analgesics, NSAIDs, Opioid derivatives, anti nauseating drugs are used in modern medicine. But these drugs on long term use cause severe adverse effects. Aspirin & NSAID can interfere with blood clotting; Acetaminophen containing preparations if taken in sufficient quantity may cause liver dysfunction, Opioid derivatives may develop drug dependence. The more common side effect on long term use of these drugs is that they develop Rebound Headache / Analgesic Headache. Hence now a days more emphasis is given on physiotherapy (with muscle relaxation and stress management) rather than the use of analgesics for the management of the condition. Hence to avoid the adverse effects, efforts have been made to develop an approach which is safe, effective and cost effective treatment modality for the management of the disease *Vatika Shirahshoola* (Tension Headache).

Aims and Objectives:

Present research work has been undertaken with the following two objectives:

Material and Methods:

1. **Study Design**: It is a randomized controlled single blind study. The data obtained after clinical study were analyzed with the help of Paired ‘t’ test.

2. **Selection of Cases**: The study was conducted in 47 clinically diagnosed patients of *Vatika Shirah Shoola* (Tension headache) out of which 4 patients discontinued the treatment and the rest 43 patients completed the treatment. The patients were selected from the OPD & IPD of NIA Hospital, Jaipur and Neurology Deptt. of SMS hospital, Jaipur as per the selection criteria. All the patients were randomly divided into following three groups.
1. Patients of Group I were treated with *Shirodhara* by *Dashamoola Taila*.

2. Patients of Group II were treated with *Jatamamasi* powder in capsule form.

3. Patients of Group III were treated with the control drug (Tab Amitryptiline).

Follow up was done on every 15th day up to one month after completion of the therapy in all the patients.

**SELECTION CRITERIAS:**

Individuals of either sex within the age group of 20 – 50 years having the history of both Episodic and Chronic type Tension Headache were selected randomly.

**EXCLUSION CRITERIAS:**

1) Individuals below 20 yrs & above 50 yrs of age.

2) Patients associated with other major systemic or psychiatric diseases.

3) Headache due to other major causes like Migraine, Trigeminal neuralgia, Intracranial space occupying lesions and other systemic diseases such as Hypertension, Refractive errors etc.

4) Patients having increased Intracranial Tension due to any reason.

**3. Selection of the Drugs:**

1. *Dashamula Taila* due to its *Vata Shamaka* property and *Shirodhara* for stress management and muscle relaxation were selected in the present study.

2. *Jatamamasi* due to its *Nidrajanana and Medhya* properties was selected.

3. For the control drug Tab. Amitryptiline was selected due to its effectiveness and cost effective point of view.

4. Pre treatment Observation: All the patients were studied along with the registration by noting down their demographic profile like age, sex, occupation, education, socioeconomical status, addictions, dietary habits etc. Detailed Physical, General and Systemic examinations were performed. During this all other relevant informations like *Astadtha Pariksha, Dashavidha Pariksha* including assessment of *Sharirika Prakrit* was done as per textual references.

**5. Administration of Drugs, Dose & Duration:**

**Group I**

- No of patients : 15 (Total registered -16, discontinued - 1)
- Drug : *Dashamoola Taila*
- Dose : *Shirodhara* with *Dashamoola Taila* for 45 minutes / day.
- Duration : 15 days.

**Group II**

- No of patients : 14 (Total registered -16, discontinued - 2)
- Drug : *Jatamamasi* powder in capsule form.
- Dose : 2 gms twice daily with lukewarm water.
- Duration : 15 days.

**Group III**

- No of patients : 15 (Total registered -15, discontinued - 1)
- Drug : Tab. Amytriptiline
- Dose : 25 mg at bed time
  ½ tab HS for 7 days.
  1 tab HS for 16 days
  ½ tab HS for 7 days
- Duration : 30 days

Follow up was done on every 15th day up to one month after completion of the therapy in all the patients.

**Investigations:**

There are no specific investigations to diagnose *Vatika Shirashoola* (Tension headache). The following Haematological, Radiological and other tests were performed wherever possible to rule out the cause of headache as well as to confirm and
distinguish the diagnosis of Vatika Shirashoola (Tension headache).

- Investigations like Hb%, TLC, DLC, ESR and FBS were recorded before and after treatment to evaluate the nature and extent of changes in relation to the course of the disease Vatika Shirashoola (Tension headache).

- Other investigations like X-ray PNS, X-ray Cervical spine, Fundoscopy, Refraction Error, Visual Acuity were done only to exclude the other pathology of headache.

- CT Scan and MRI of brain, EEG etc were advised wherever possible.

6. **Criteria of Assessment:**

   During the trial and follow up study the patients were assessed after completion of treatment and follow up was done on every 15th day upto one month on the basis of following parameters:

   (A) **Subjective Improvement:**

   All the patients under trial were specially asked for any changes or improvement in their growing feeling of well being either physical or mental and their clinical manifestations produced by the drug under trial.

   (B) **Clinical Improvement:**

   All symptoms to be taken for the assessment of clinical improvement, the incidence of presenting features were worked out and the severity of the symptoms was rated in each case. For this purpose the following “Symptom Rating Scale” developed by Prof. A.K. Sharma et.al was used.

### Symptom Rating Scale for Vatika Shirashoola (Tension headache) developed by Prof. A.K. Sharma et.al.

<table>
<thead>
<tr>
<th>Sl.</th>
<th>Symptoms</th>
<th>Grades</th>
<th>No.</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Absent</td>
<td>-</td>
<td>0</td>
<td>00</td>
</tr>
<tr>
<td>2.</td>
<td>Mild</td>
<td>+</td>
<td>1</td>
<td>25%</td>
</tr>
<tr>
<td>3.</td>
<td>Moderate</td>
<td>++</td>
<td>2</td>
<td>50%</td>
</tr>
<tr>
<td>4.</td>
<td>Severe</td>
<td>+++</td>
<td>3</td>
<td>75%</td>
</tr>
<tr>
<td>5.</td>
<td>Agonising</td>
<td>++++</td>
<td>4</td>
<td>100%</td>
</tr>
</tbody>
</table>

Following symptoms of Vatika Shirashoola (Tension Headache) were assessed before and after the therapy.

1. **Ghata Sambhidhyate** (Cutting type of pain in posterior aspect of neck)
2. **Bhru madhye Tapa, Ativedana** (Burning sensation & pain in between the eyebrows)
3. **Lalatam tapa, ativedana** (Burning sensation & pain in fore head)
4. **Srotro Baddha** (Loss of hearing power)
5. **Swanatah Srotre** (Abnormal sounds in ear)
6. **Shiraghurnanam** (Head reeling)
7. **SarbaSandhee Mochanam** (Pain in all the joints of skull)
8. **Sirah Spurana** (Pulsatile Veins in Head)
9. **Stavyate cha shirodhara** (Tightness of muscles of neck)
10. Nausea/Vomiting
11. Light Sensitivity
12. Sound sensitivity
13. Frequency of attack

Besides this a “Headache Impact Questionary” was advised to be maintained by the patient for the self assessment of headache and to rule out the triggering factors and relieving factors of the headache.

**Observations & Results**

The demographic data w.r.t. to age, sex, habitat, socioeconomic status, occupation and observations like Sharirika Prakriti, status of Agni, status of Kostha and chronicity of illness etc. are presented in graphs. The data obtained after clinical study were analyzed with the help of paired 't' test.
(showing incidence of age in 47 patients of Vatika Shirahshoola (Tension Headache).

Age Group

<table>
<thead>
<tr>
<th>Group</th>
<th>No. of Patients</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>20-30</td>
<td>21</td>
<td>44.68</td>
</tr>
<tr>
<td>31-40</td>
<td>16</td>
<td>34.05</td>
</tr>
<tr>
<td>41-50</td>
<td>10</td>
<td>21.27</td>
</tr>
</tbody>
</table>

(showing incidence of Sex in 47 registered patients of Vatika Shirahshoola (Tension Headache).

- Male: 36.16%
- Female: 63.82%

(showing incidence of Habitat in 47 registered patients of Vatika Shirahshoola (Tension Headache).

<table>
<thead>
<tr>
<th>Group</th>
<th>Total</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group I</td>
<td>7</td>
<td>12</td>
</tr>
<tr>
<td>Group II</td>
<td>7</td>
<td>12</td>
</tr>
<tr>
<td>Group III</td>
<td>8</td>
<td>14.89</td>
</tr>
<tr>
<td>Total</td>
<td>22</td>
<td>38.29</td>
</tr>
<tr>
<td>Percentage</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Graph - 4

(showing incidence of socioeconomical status in 47 registered patients)

<table>
<thead>
<tr>
<th>Group</th>
<th>Total</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group I</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group II</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group III</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Percentage</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Graph - 5

Showing the incidence of Occupation

<table>
<thead>
<tr>
<th>Occupation</th>
<th>No &amp; Percentage</th>
<th>Total</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student</td>
<td>11</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stitching</td>
<td>4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Barber</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gems work</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>House wife</td>
<td>17</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Labour</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Computer work</td>
<td>5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Business man</td>
<td>2</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Graph - 6

<table>
<thead>
<tr>
<th>Presence</th>
<th>No &amp; Percentage</th>
<th>Total No. of Patients</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Present</td>
<td>2</td>
<td>4.25</td>
<td></td>
</tr>
<tr>
<td>Absent</td>
<td>45</td>
<td>95.75</td>
<td></td>
</tr>
</tbody>
</table>
Graph - 7

Sharirika Prakriti

Graph - 8

Manasika Prakriti

Graph - 9

Incidence of Status of Agni
Incidence of types of Kostha

- Kroora (18) 38%
- Mridu (13) 28%
- Madhya (16) 34%

Incidence of Sleep pattern

- Samyaka 51%
- Ati 9%
- Alpa 38%
- Hridamahaka 2%

Regions of Headache

- Unilateral
- Bilateral
- Bitu
- Lakata
- Shankha
- Karna
- Akshi
- Occipital
- Panetal
- Non-specific
Types of Tension Headache

Showing comparative overall effect of improvement in different groups of Vatika Shirahshoolu (Tension headache) on the basis of Clinical parameters after respective treatment.
Table No: 1
(Showing overall improvement in the symptoms of Vatika Shirahshoola (Tension Headache) in all the three groups)

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Symptoms</th>
<th>Group I</th>
<th>Group II</th>
<th>Group III</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td><em>Ghata Sambhidhyate</em> (Cutting type of pain in posterior aspect of neck)</td>
<td>80.00 %</td>
<td>**</td>
<td>66.67 %</td>
</tr>
<tr>
<td>2</td>
<td><em>Bhru madhye Ativedana</em> (Pain in between the eyebrows)</td>
<td>75.00 %</td>
<td>100 %</td>
<td>100 %</td>
</tr>
<tr>
<td>3</td>
<td><em>Bhru madhye Tapa</em> (Burning sensation in between eyebrows)</td>
<td>**</td>
<td>**</td>
<td>**</td>
</tr>
<tr>
<td>4</td>
<td><em>Lalatam ativedana</em> (Pain in fore head)</td>
<td>70.00 %</td>
<td>72.72 %</td>
<td>100 %</td>
</tr>
<tr>
<td>5</td>
<td><em>Lalatam Tapa</em> (Burning sensation in fore head)</td>
<td>**</td>
<td>**</td>
<td>**</td>
</tr>
<tr>
<td>6</td>
<td><em>Shiraghurnanam</em> (Head reeling)</td>
<td>66.67 %</td>
<td>33.33 %</td>
<td>100 %</td>
</tr>
<tr>
<td>7</td>
<td><em>SarbaSandhee Mochanam</em> (Pain in all the joints of skull)</td>
<td>58.33 %</td>
<td>33.33 %</td>
<td>100 %</td>
</tr>
<tr>
<td>8</td>
<td><em>Niskrusyate Aksheenam</em> (Feeling of eyes extruded outwards)</td>
<td>**</td>
<td>**</td>
<td>**</td>
</tr>
<tr>
<td>9</td>
<td><em>Sirah Sphuranam</em> (Pulsatile Veins in Head)</td>
<td>70.59 %</td>
<td>18.18 %</td>
<td>100 %</td>
</tr>
<tr>
<td>10</td>
<td><em>Stavyate cha shirodhara</em> (Tightness of muscles of neck)</td>
<td>57.14 %</td>
<td>**</td>
<td>80 %</td>
</tr>
<tr>
<td>11</td>
<td><em>Nausea/Vomiting</em></td>
<td>57.14 %</td>
<td>83.33 %</td>
<td>100 %</td>
</tr>
<tr>
<td>12</td>
<td><em>Light sensitivity</em></td>
<td>45.45 %</td>
<td>16.66 %</td>
<td>90 %</td>
</tr>
<tr>
<td>13</td>
<td><em>Sound sensitivity</em></td>
<td>61.54 %</td>
<td>36.36 %</td>
<td>100 %</td>
</tr>
<tr>
<td>14</td>
<td><em>Intensity of pain</em></td>
<td>57.14 %</td>
<td>33.33 %</td>
<td>74.19 %</td>
</tr>
<tr>
<td>15</td>
<td><em>Frequency of attack</em></td>
<td>58 %</td>
<td>13.51 %</td>
<td>69.05 %</td>
</tr>
</tbody>
</table>

**N.B.** The symptoms Marked "**" were absent in the respective groups.
**Table No:2**

(Showing p – value in the symptoms of *Vatika Shirahshoola* (Tension Headache) in all the three groups)

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Symptoms</th>
<th>Group I</th>
<th></th>
<th>Group II</th>
<th></th>
<th>Group III</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>P value</td>
<td>Result</td>
<td>P value</td>
<td>Result</td>
<td>P Value</td>
<td>Result</td>
</tr>
<tr>
<td>1</td>
<td><em>Ghata Sambhidhyate</em> (Cutting type of pain in posterior aspect of neck)</td>
<td>&lt;0.05</td>
<td>S</td>
<td>**</td>
<td>**</td>
<td>&lt;0.05</td>
<td>S</td>
</tr>
<tr>
<td>2</td>
<td><em>Bhru madhye Ativedana</em> (Pain in between the eyebrows)</td>
<td>&lt;0.10</td>
<td>NS</td>
<td>ND</td>
<td>ND</td>
<td>ND</td>
<td>ND</td>
</tr>
<tr>
<td>3</td>
<td><em>Bhru madhye Tapa</em> (Burning sensation in between eyebrows)</td>
<td>**</td>
<td>**</td>
<td>**</td>
<td>**</td>
<td>**</td>
<td>**</td>
</tr>
<tr>
<td>4</td>
<td><em>Lalatam ativedana</em> (Pain in fore head)</td>
<td>&lt;0.01</td>
<td>S</td>
<td>&lt;0.10</td>
<td>NS</td>
<td>ND</td>
<td>ND</td>
</tr>
<tr>
<td>5</td>
<td><em>Lalatam Tapa</em> (Burning sensation in fore head)</td>
<td>**</td>
<td>**</td>
<td>**</td>
<td>**</td>
<td>**</td>
<td>**</td>
</tr>
<tr>
<td>6</td>
<td><em>Shiraghurnanam</em> (Head reeling)</td>
<td>&lt;0.01</td>
<td>S</td>
<td>&gt;0.10</td>
<td>NS</td>
<td>&lt;0.01</td>
<td>S</td>
</tr>
<tr>
<td>7</td>
<td><em>Sarba Sandhee Mochanam</em> (Pain in all the joints of skull)</td>
<td>&lt;0.001</td>
<td>HS</td>
<td>&gt;0.10</td>
<td>NS</td>
<td>&lt;0.05</td>
<td>S</td>
</tr>
<tr>
<td>8</td>
<td><em>Niskrusyate Aksheenam</em> (Feeling of eyes extruded outwards)</td>
<td>**</td>
<td>**</td>
<td>**</td>
<td>**</td>
<td>**</td>
<td>**</td>
</tr>
<tr>
<td>9</td>
<td><em>Sirah Sphuranam</em> (Pulsatile Veins in Head)</td>
<td>&lt;0.001</td>
<td>HS</td>
<td>&gt;0.10</td>
<td>NS</td>
<td>&lt;0.001</td>
<td>HS</td>
</tr>
<tr>
<td>10</td>
<td><em>Stavyate cha shirodhara</em> (Tightness of muscles of neck)</td>
<td>&lt;0.05</td>
<td>S</td>
<td>ND</td>
<td>ND</td>
<td>&lt;0.02</td>
<td>S</td>
</tr>
<tr>
<td>11</td>
<td><em>Nausea/Vomiting</em></td>
<td>&lt;0.05</td>
<td>S</td>
<td>&lt;0.01</td>
<td>S</td>
<td>ND</td>
<td>ND</td>
</tr>
<tr>
<td>12</td>
<td><em>Light sensitivity</em></td>
<td>&lt;0.02</td>
<td>S</td>
<td>&gt;0.10</td>
<td>NS</td>
<td>&lt;0.001</td>
<td>HS</td>
</tr>
<tr>
<td>13</td>
<td><em>Sound sensitivity</em></td>
<td>&lt;0.001</td>
<td>HS</td>
<td>&lt;0.05</td>
<td>S</td>
<td>ND</td>
<td>ND</td>
</tr>
<tr>
<td>14</td>
<td><em>Intensity of pain</em></td>
<td>&lt;0.001</td>
<td>HS</td>
<td>&lt;0.01</td>
<td>S</td>
<td>&lt;0.001</td>
<td>HS</td>
</tr>
<tr>
<td>15</td>
<td><em>Frequency of attack</em></td>
<td>&lt;0.001</td>
<td>HS</td>
<td>&lt;0.02</td>
<td>S</td>
<td>&lt;0.001</td>
<td>HS</td>
</tr>
</tbody>
</table>

**N.B.** The symptoms Marked "**" were absent in the respective groups.
Discussions:

Graph – 1: The observations in the present study reveal that incidence of *Vatika Shirashoola* (Tension headache) is highest in the age group 21-30 years (21 cases, 44.68%), 16 cases (34.05%) were from 31-40 years of age group and 10 cases (21.27%) were from 41-50 years of age group. This shows that *Vatika Shirahshoola* is found more in the youngsters within the age group of 20-30 years. This may be because of the reason that in this age group the young people are more exposed to several types of stress and strain of day to day life regarding their study, career, job and family problems etc.

Graph – 2: In the present series of patients there is dominance of female sex. (30 cases, 63.82%).

Graph – 3: Maximum number (27 cases, 57.44%) of patients registered were from urban area. This may be due to the location of the hospitals in the city area and awareness of the people about their ailments.

Graph-4: The majority of cases registered for the current trial, belonged to lower class 22 (46.82%) patients. Middle class people also exhibited 18 (38.29%) patients. Only 07 (14.89%) cases were recorded from the high class society.

Graph-5: In the present study maximum percentage (17 cases, 36.18%) of the patients was of House wives and next from students (11 cases, 23.40%). Other occupations observed were Stitching (Tailors), Barber, Gems workers, Computer operators, Business man etc. From this observation it is clear that persons having occupations in which there is excessive strain over eyes, neck muscles and mental stress are more prone to suffer from the disease *Vatika Shirahshoola* (tension headache).

Graph-6: It is clear from this graph that *Vatika Shirahshoola* (Tension headache) may be seen in several family members but it is not hereditary in nature.

Graph-7: Patients of *Vata-Pittaj Prakriti* (48.94%, 23 patients) and *Rajasika prakriti* (20 cases, 42.45%) dominated the series.

Graph-8: It was observed that maximum patients 20 (42.45%) were having *Rajasika* type of *Manasa Prakriti* and other *Satyika and Tamasika Prakriti* were found in 15 (31.92%) and 12 (25.53%) patients respectively.

Graph-9 & 10: Regarding the status of *Agni* and *Kostha* observations show that the patients of *Vishamagni* (23 cases, 48.93%) & *Kroora Kostha* (18 cases, 38.3%) dominated the series, which indicates the dominance of *Vata Dosha* in the disease *Vatika Shirahshoola*.

Graph-11: Maximum percentage (24 cases, 51.06%) of patients had *Samyaka Nidra* (normal sleeping pattern). But deprivation of sleep due to any cause aggravates *Vatika Shirahshoola* (Tension Headache) and sleep also relieves the disease.

Graph-12: Maximum number of patients, registered for the current clinical study were having non-specific headache i.e. 18 (38.30%) patients and the particular site involved in headache was found maximum in bilateral head region i.e. in 15 (31.91%) cases.

Graph-13: In the present series of patients registered for the trial maximum percentage (27 cases, 57.4%) of cases presented with history of chronic Tension type headache, where as 27.65% (13) cases witnessed Frequent Episodic type of headache and 14.49% (07) cases witnessed Infrequent Episodic type Tension headache.

Graph-14: It shows that on assessment of overall improvement there was 63.05%, 39.20% & 87.11% of relief in patients of group I, II & III respectively. But statistically the improvement was highly significant in patients of group I & III & insignificant in patients of group II.

Table -1: It shows the overall improvement in different symptoms of *Vatika Shirahshoola* (Tension Headache). However maximum relief was observed in patients of 1st and 3rd group in comparison to patients of 2nd group.

Table -2: It shows the p-value and the statistical assessment of different symptoms of *Vatika Shirahshoola* (Tension Headache) in all the three groups.

On over all observations of different symptoms of *Vatika Shirahshoola* (Tension headache) revealed that the patients treated with
Shirodhara and tablet Amytriptyline showed highly significant relief in various symptoms and the patients treated with Jatamansi powder showed significant relief in some of the symptoms. Although the rate of relief in patients of Vatika Shirahshoolaa (Tension headache) with Amytriptyline tablet was very fast and maximum percentage of relief was noticed in patients but certain adverse effects like drowsiness, dryness of mouth & tongue were also reported with recurrence of Vatika Shirahshoolaa (Tension headache) in some patients after the course of treatment. Whereas in the patients of Shirodhara treated group though the onset of relief in various symptoms of Vatika Shirahshoolaa (Tension headache) was slow but no patients complained about any adverse effects and there was no reccurrence of symptoms after the therapy. Therefore Shirodhara with Dashamoola Taila seems to be better remedy for the management of patients suffering from Vatika Shirahshoolaa (Tension headache).

Probable modes of action of Dashamoola Taila

As per the description regarding Dashamoola taila in Bhaishajya Ratnavali it is effective in the management of all types of Vata-Kaphaj Shirorogas on external application. It is also effective in five types of Kasa, Shotha, Jeerna Jwara, diseases of head, Karna (Ear), Akshi (Eye), Manyasthambha (Lock Jaw), Antra Vriddhi and Shleepada (Filariasis) etc.

By summarizing the properties of the constituent drugs of Dashamoola taila it is clear that it possesses the properties like Deepana (appetizer), Pachana (Digestive), Anulomana, Vatahara, Kaphahara, Shothahara, Vishahara, Vrimhana, Rasayana (rejuvenative) & Medhya (nervine tonic) properties. Besides these Sarshapa Taila (mustard oil) is having Katu, Tikshna, Laghu, Guna & having Vata-Kapha Nashaka properties. Hence it is beneficial in the management of Vatika Shirahshoolaa.

Probable modes of action of Shirodhara

It is quite difficult to pinpoint the exact modes of action of Shirodhara, because it needs much advanced studies & researches to establish it. Still some efforts have been made to put forward some probable modes of action of Shirodhara. The following mechanisms may act individually or in combination for clinical improvement in patients of Vatika Shirahshoolaa (Tension Headache)-

1. Shirodhara therapy has been found to have anxiolytic, adaptogenic and tranquilizing effects resulting into a kind of relaxation response.
2. It is a kind of relaxation therapy which reduces mental tension, anxiety and results in a more calm out look without producing any marked degree of sedation and hypnosis without grossly altering in the level of consciousness.
3. When nerve endings of autonomic nervous system are stimulated, they produce chemical substances like acetyl choline. Constant pouring of oil/milk over forehead stimulates the nerve ending and in turn Acetyl choline may be liberated. Small doses of Acetyl choline cause fall of blood pressure, leading to decreased activity of central nervous system.
4. Vitiated Vata Dosha is responsible for Manasika Dosha Raja and other Manasika Vyadhies like Anidra,Chittodvega etc. Shirodhara may calm down the hyper action of vitiated Vata Dosha and ultimately produce tranquility of mind.
5. Shirodhara may produce Medhya effect by reflex action.
6. Shirodhara may activate and stimulate the 4S area in prefrontal lobe in the brain which is the seat of learning, memory and behavior.
7. According to Yogic science, there are 10 main Chetana Kendras (Nadichakra) in our body. These Nadichakras are connected to each other and work in collaboration with each other. Two Chakras, viz; Agya Chakra (between two eyebrows) & Bhramarguha Chakra (in upper part of forehead) are stimulated by Shirodhara, which in turn produce beneficial effects.
8. Shirodhara may act locally as a local anesthetic agent, there by producing tranquility of mind and resulting in improvement in mental functions.
Probable modes of action of Jatamansi

The patients of 2nd group were treated with Jatamansi powder in capsule form for the management of Vatika Shirahshoola. Jatamansi possesses Tikta, Kasaya Rasa, Laghu Guna ,Shita Virya and Katu Vipaka. It possesses Medhya, Tridoshaghna and Nidrajanana properties. Since Vatika Shirahshoola (Tension headache) is associated with anxiety, sress and strain etc, Jatamansi is more potent to counteract the psychological factors and thus relieve Vatika Shirahshoola (Tension headache). It also acts as a nervine tonic. Hence headache due to neurologic causes can also be treated effectively by Jatamansi.

Side / Adverse effects:

None of the patients of the 1st group (Shirodhara group) & 2nd group (Jatamansi group) reported any side effects. Whereas the son e of the patients treated with the controled drug (Tab. Amytryptiline) reported side effects like excessive sleep, dryness of tongue, lip etc & recurrence after discontinuing the drug.

Conclusion:

On the basis of findings and observations obtained after completion of current project it can be concluded that Dashamoola Taila Shirodhara is an effective, dependable, safe, readily available and good remedy for the management of Vatika Shirahshoola (Tension Headache).

References

2. Chapter – 2, Conquering Headache, 2nd edition by Alan Rapoport, Fred Sheftelt-2006
4. (Bh.R. 65/90-93) Bhaisajya Ratnavali of Kaviraja Govinda Das Sen, Siddhi Prada Hindi Commentary, by Prof. Siddhi Nandan Mishra, Chaukambha Surbharti Prakashan, Varanasi, 1st edition , 2005
5. Dravyaguna Vigyana, by Prof. P.V. Sharma, published by Chaukambha Bharti Academy, Gopal Mandir Lane, Varanasi,1998
7. The panchakarma treatment of Ayurveda including Keraliya panchakarma, by Prof. A. K. Sharma, Published by Shri Satguru Publications Delhi, 1st edition-2002

Websites:

1. www. himalaya drugs.co.in
2. www.ayurveda.fooryou.com
3. www.ccras.nic.in
4. www.google.com
5. www.medicine.net.com

Journals:

1. Medicinal and Aromatic Plants Abstracts (MAPA). National Institute of Science Communication CSIR New Delhi, India Vol. 23 June, 2001
3. Indian Journal of Traditional Knowledge, NISCAIR, CSIR New Delhi, India Vol. 5 October 2006.