PRE TEST AND POST TEST DESIGN STUDY TO EVALUATE THE EFFICACY OF VASTI AND VIRECHANA IN GOUTY ARTHRITIS

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ABSTRACT
Ayurveda with its vast concepts and treatment principles has the capacity to cure all sorts of complex ailments of the present medical scenario. Gouty Arthritis is one such complex disease which can affect the patient with its painful clinical manifestation. While we consider the concept of Vatarakta by our Acharyas the clinical symptoms are having much similarity with Gout and treatments like Vasti and Virechana are considered to have promising results. So here in this study an attempt is made to evaluate the Comparative efficacy of Vasti and Virechana in Gouty Arthritis Monitoring the levels of Serum Uric Acid and other symptoms.

KEY WORDS: Gouty Arthritis, Vatarakta, Vasti, Virechana, Serum Uric Acid

INTRODUCTION
Ayurveda, a system of natural healing from the very Ancient Vedic culture of India is more than merely a system of treating illness but is the science of life that provides a body of wisdom, guidelines on ideal routines, diet, behavior, proper use of senses maintaining a health which is balanced with a dynamic integration between our environment, body, mind and spirit. It deals with Shamana of the imbalanced Doshas either by pacifying them to normalcy or eradicating the vitiated Doshas out of the body, which no other system in the world has addressed. It brings back the body to normalcy without hindering the body systems¹.
Vatarakta is caused by vitiation of Vata and Rakta. Aggravated Vata blocked by vitiated Rakta, in turn leading to further aggravation of Vata. Thus aggravated Vata vitiates the Rakta leading to condition Vatarakta. Vatarakta is a Roga related with KhaVaigunya of Raktavaha Srotas the vitiated Rakta gravitates and accumulates in the feet. In the intial stage, the hands and feets are affected. The illness then spreads all over the body like rat poison. Due to the Drava, Chala and Sookshmathwa nature of Vata and Rakta it moves all over the body, while they move through blood vessels, they get obstructed in the joints which further aggravates them and the morbid matter get lodged there. Both the Viruddha Aahara and Vihara will lead to this condition. Nidanas include Katu, Amla, Ushna, Vidahi ahara, Gaja Ustra yaana etc is mentioned. It has mainly two stages i.e. Uttana and Gambhira. The Nidana, Lakshana and Samprapthi of Vatarakta is having similarity with clinical presentation of Gout explained in the modern medical science. Gouty Arthritis is a medical condition usually characterized by recurrent attacks of Acute Inflammatory Arthritis. It is characterized by painful swelling of the joints and the tenderness and redness in the affected areas. Gout pains are usually developed in the joints of the legs, especially the big toe. About 75% of all Gout pains originate in the big toe. Apart from the big toe, other joints like ankle, toe heels, hand, wrist and elbows can also be affected. The Treatment of Gouty Arthritis /Vatarakta is well explained in Ayurveda including Shodhana Chikitsa, Shamana Chikitsa, and Rasayana Prayoga. The Shodhana procedures like Vasti, Raktamokshana, and Virechana are considered as most effective line of treatment but Shamana Aushadhis also play a major role in the management of Vatarakta. Vata Hara and Rakta Prasadaka Chikitsa are much relevant as the vyadhi is due to the simultaneous vitiation of Vata and Rakta at Sandhi
producing a slow pathological manifestation. Shodhana Chikitsa is considered as the best line of treatment for Vatarakta\(^2\). In the line of treatment of Gouty Arthritis /Vataraktha MalaSodhana plays an important role as it is also a case of Hyperurecemia\(^3\) caused due to accumulation of Mala (uric acid) in the dependent joints which is similar to Gambhira Vataraktha. Among the Shodhana procedures Vasti and Virechana is more emphasized by Acharyas. Vatarakta is one of the Madhyama Rogamarga the best treatment for Madhyama Rogamarga is Vasti because it will mainly affect in Asthi, Sandhi, Snayu, etc. Vasti is considered as the par excellence treatment modality in the management of Vatarakta.\(^2\) The drugs were selected by virtue of their property act on the vitiated Dosha and Dooshya (Dosha: Vata, pradhana Tridosha, Dooshya: Rasa, Rakta, Mamsa, Meda, Asthi, Majja). Vasti due to purification, eliminates the excess of deranged metabolic waste and it in turn clears the Avarana of Vata and normalize the functions of Vyana and Apana. Once the proper purification is done then the digestive power is going to become normal and the proper metabolism starts which in turn's help to form the Samyak Dhatus.\(^4\)

As Nirharana of sanchita mala is the main line of treatment and Vataraktha is a disease with Rakthadushti Virechana is also considered as a main line of treatment. RakthaDhatu is considered as the ashrayasthana for pitta Dosha hence Virechana is considered as the specific Sodhana karma for rakthaja and pittaja vikaras. Virechana karma not only eliminates the vitiated Doshas but also does the Sodhana of sanchita mala of RaktaDhatu and thereby removing the Avarana of kupita Vata resulting in reduced Serum Uric Acid levels and symptoms involved.\(^5\)

**MATERIELS AND METHOD**

Group-A received Amapachana with Sunti Churna, Kala Vasti with Vasaguduchyadi Kashaya\(^6\), and Guduchyadi Ghrita \(^7\) (Anuvasana) and
moorchita tila taila for Abhyanga with mridu swedana followed by Shamanaoushadhis - Punarnavadi guggulu 2 bd with kokilaksham kashayam (30-45 ml) bd as anupana.

Group-B received Amapachana with Sunti Churna, Snehapana with Guduchyadi Ghrita and Virechana with Nimbamritadi eranda taila and moorchita tila taila for Abhyanga with mridu swedana followed by Rasna Guggulu bd with Manjishtadi Kashaya (30-45 ml) as Anupana.

The follow up period for both the group was 48 days for Group A and 30 days for Group B. The assessment was done before the treatment, soon after the completion of the course of the treatment and after the follow up period and thus the total assessment was done based on change in improvement observed, before and after the treatment.

Effect of Therapy on Subjective Parameters in Group A (VASAGUDUCHYADI NIROOHA VASTI)

Effect of therapies on Sandhi Graha: The mean score before treatment was 3.15 which reduced to 1.15 After the follow up with, 63.49% improvement in this parameter. The total effect of therapy provided statistically highly significant (p<0.001) result with 't' value of 12.57.

Effect of therapies on Sandhi Shoola: The mean score before treatment was 2.45 which reduced to 0.45, after the follow up with, 81.6% improvement in this parameter. The total effect of therapy provided statistically highly significant (p<0.001) result with 't' value of 22.2.

Effect of therapies on Sandhi Shotha: The mean score before treatment was 2.5 which reduced to 0.9 after the follow up with, 64.61% improvement in this parameter. The total effect of therapy provided statistically highly significant (p<0.001) result with 't' value of 14.96.

Effect of Therapy on Objective Parameters in Group A
Effect of therapies on Serum Uric Acid: The mean score before treatment was 2.25 which reduced to 0.25 after the follow up with, 88.8% improvement in this parameter. The total effect of therapy provided statistically highly significant (p<0.001) result with ‘t’ value of 11.76.

Effect of therapies on Affected Joint Colour: The mean score before treatment was 1.8 which reduced to 0.70 after the follow up with, 61.1% improvement in this parameter. The total effect of therapy provided statistically highly significant (p<0.001) result with ‘t’ value of 7.80.

Effect of therapies on SparshaAsahatva: The mean score before treatment was 2.25 which reduced to 0.75 after the follow up with, 66.6% improvement in this parameter. The total effect of therapy provided statistically highly significant (p<0.001) result with ‘t’ value of 13.2.

Effect of therapies on Sandhi Graha: The mean score before treatment was 3.25 which reduced to 2.25 after the follow up with, 30.7% improvement in this parameter. The total effect of therapy provided statistically highly significant (p<0.001) result with ‘t’ value of 8.8.

Effect of therapies on Sandhi Shoola: The mean score before treatment was 2.4 which reduced to 1.5 after the follow up with, 37.5% improvement in this parameter. The total effect of therapy provided statistically highly significant (p<0.001) result with ‘t’ value of 12.0.

<table>
<thead>
<tr>
<th>BT</th>
<th>AT</th>
<th>BT-AT</th>
<th>% of relief</th>
</tr>
</thead>
<tbody>
<tr>
<td>337</td>
<td>75</td>
<td>262</td>
<td>77.74%</td>
</tr>
</tbody>
</table>

*BT-Before Treatment   *AF-After Follow-up

The total symptoms score before treatment and after follow-up in 15 subjects of group-A was 337 and 75 respectively. The therapy provided 77.74% relief in the total symptoms score.

Effect of Therapy on Subjective Parameters in Group B (NIMBAMRITHA ERANDA THAIL VIRECHANA)

Effect of therapies on Sandhi Graha: The mean score before treatment was 3.25 which reduced to 2.25 after the follow up with, 30.7% improvement in this parameter. The total effect of therapy provided statistically highly significant (p<0.001) result with ‘t’ value of 8.8.

Effect of therapies on Sandhi Shoola: The mean score before treatment was 2.4 which reduced to 1.5 after the follow up with, 37.5% improvement in this parameter. The total effect of therapy provided statistically highly significant (p<0.001) result with ‘t’ value of 12.0.

Table Showing Mean Effect of therapy on individual total symptoms score of 20 subjects of Group A:
significant (p<0.001) result with t’ value of 20.93.

Effect of therapies on Sandhi Shotha:
The mean score before treatment was 2.45 which reduced to 1.45 after the follow up with, 40.8% improvement in this parameter. The total effect of therapy provided statistically highly significant (p<0.001) result with t’ value of 3.93.

Effect of Therapy on Objective Parameters in Group B (NIMBAMRITHA ERANDA THAIL VIRECHANA)

Effect of therapies on Serum Uric Acid:
The mean score before treatment was 2.25 which reduced to 0.75 after the follow up with, 66.3% improvement in this parameter. The total effect of therapy provided statistically highly significant (p<0.001) result with t’ value of 12.8.

Effect of therapies on Affected Joint Colour:
The mean score before treatment was 1.9 which reduced to 1.15 after the follow up with, 40% improvement in this parameter. The total effect of therapy provided statistically highly significant (p<0.001) result with t’ value of 7.87.

Effect of therapies on Sparsha Asahatva:
The mean score before treatment was 1.7 which reduced to 1.1 after the follow up with, 80% improvement in this parameter. The total effect of therapy provided statistically highly significant (p<0.001) result with t’ value of 8.32.

Showing Mean Effect of therapy on individual total symptoms score of 20 subjects of Group B:-

<table>
<thead>
<tr>
<th>BT</th>
<th>AF</th>
<th>BT-AF</th>
<th>% of relief</th>
</tr>
</thead>
<tbody>
<tr>
<td>336</td>
<td>146</td>
<td>190</td>
<td>56.50</td>
</tr>
</tbody>
</table>

*BT- Before Treatment  *AF- After Follow-up

The total symptoms score before treatment and after follow-up in 15 subjects of group-A was 336 and 146 respectively. The therapy provided 56.50% relief in the total symptoms score.

TOTAL EFFECT OF THERAPIES IN THE STUDY

Table Showing Effect of Therapy on different parameters in Group A & B (In %):
Effect of therapy on different parameters in Group A: A maximum percentage i.e. 88.8% relief was observed in Serum Uric Acid, 81.6% observed in Sandhi shotha, 66.60% relief was observed in the Sparsha Asahatva assessment. 64.61% relief was observed in the parameter Sandhi Shoola. 63.49% relief was observed in SandhiGraha. 61.10% relief was observed in Affected Joint Colour.

Effect of therapy on different parameters in Group B: A maximum percentage i.e. 66.3% relief was observed in Serum Uric Acid. 40.8% relief was observed in Sandhi shotha, 40.8% relief was observed in Affected Joint colour. 37.4% relief was observed in the parameter Sandhi Shoola, 36.2% relief was observed in the Sparsha Asahatva. 30.7% relief was observed in Sandhi Graha.

Discussion on Overall effect of study on Cardinal Symptoms in both Groups.

In Group A

Marked relief (Above 75%):- In 13 subjects
Moderate relief (50-75%):- In 7 subjects
Mild relief (25%-50%):- 0
No relief (Below 25%):- 0

In Group B

Marked relief (Above 75%):- In 1 subject
Moderate relief (50-75%):- In 12 subjects
Mild relief (25%-50%):- In 7 subjects
No relief (Below 25%):- 0

DISCUSSION

Various etiological factors of Vata Dosha and Rakta Dhatu separately or together can result in the Vikruti of Vata Doshaas well as Pradusti of Rakta Dhatu. Vitiated Vata Dosha further causes vitiation of Raktha Dhatu which causes Margavarana and blocks the movement of Vata Dosha leading to severe morbidity of Vata Dosha causing various Clinical Signs and Symptoms. Thus the illness Vatarakta Clinically manifests which is much similar in the symptomatic manifestation patterns with Gouty Arthritis. The cause, Pathology and Features are having much similarity with the classical
references. Basically, it is a metabolic Disorder presenting with Inflammation of one joint that begins suddenly especially in the Big Toe or padayoorooram, which is its first site of attack and spreading to other joints which is mainly due to Monosodium Urate crystals in and around the joint structure.

Present day life style, dietary habits, social and environmental situations have given rise to the number of patients of Gouty Arthritis/Vataraktha in the society. So the treatment we planned was basically Vata hara and Rakta Prasadaka remedies along with Sodhana Procedures as the patient need to get symptomatic relief from pain, redness, swelling and at the same time the excessive Serum Uric Acid should be eliminated out to avoid further reoccurrence which is very common in Gouty Arthritis so long term treatment is essential for cure of the disease. Along with that proper Pathya Apathya Anger, Depression and Psychological stability should be also taken in to consideration as they are having much influence on the Gourty Arthritis / Vatarakta conditions.

CONCLUSION

Following conclusions were drawn after Systematic Clinical Trial on 40 Subjects who were divided into 2 groups with 20 Subjects in each group. In this particular Disease mainly Rakta, Asthi and Majja vaha Srotas and Vata and Pitta Dosha are vitiated so the treatment we adopted was Shunti Churna (Deepana and Pachana), Vasaguduchyadi Nirooha Vasti, Guduchyadi Ghrita Anuvasana Vasti in Kala Vasti shedule and Externally Moorchita Thila Taila for Abhyanga and Punarnavadi Guggulu 2 BD with Kokilaksham Kashayam as Anupana in Group A; Sunti Churna (Deepana and Pachana), Guduchyadi Ghrita Sadyo Snehapani and Nimbamrithadi Eranda Thaila Virechana and externally Moorchita Thila Taila for Abhyanga along with Rasnadi Guggulu 2 BD and
Manjishtadi kashayam as Anupana in Group B. Both these Treatment concepts by our Acharyas proved to be efficient in controlling Gouty Arthritis but as per the Clinical Data and Statistical Analysis, The Subjects of Group A showed better results in all parameters compared to Group B. So Vasti has a much contributory effect in Gouty Arthritis/ Vatarakta even though Virechana also has a significant role in the disease Gouty Arthritis/ Vatarakta.

So, Future Research Studies on the action of procedures like Vasti, and Virechana at the metabolic and cellular levels and pharmacological actions of the medicinal combinations used in this study, should be conducted to make our science understandable to the modern scientific society, so that let everyone get the benefits of Ayurveda and blessings of lord Dhanvantari.

‘SARVE SANTU NIRAMAYA’

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