

## Assessment of comparative treatment protocol in the management of *Janu-shool* with special reference to osteo –arthritis knee.

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### Abstract :

The study is to assess of comparative treatment protocol in the management of *janu-shool* with special reference to osteo–arthritis knee. The objectives are to bring down the morbidity due to *Janu-shool*, to maintain the routine activities of patients symptom-free, to slow down the progress of the disease, to postpone the surgical intervention in cases of severe osteo- arthritis.

Three groups of treatment modalities were selected ,each comprising 50 patients .First group was treated with Tab. Pirox 20 OD, Second group was given *Nirgundi-patra-pottali sweda* and the third group was treated with *Nirgundi-patra-pottali –swed* along with *Tikta- Ksheer Basti*. All three modalities were given for a week and follow-up was kept for one year. Through the Cincinnati knee rating system.

After the thorough study of all the parameters and aspects it was seen that the third group

i.e. Patients treated with *Tikta-Ksheer-Basti + Nirgundi patra pottali sweda* proved to be most effective protocol with comparatively long lasting relief. The relief in all the parameters is statistically convincing and encouraging.

### Keywords:

Osteo-arthritis knee, *Janu-shool*, Tab. pirox, *Nirgundi-Patra-Pottali-Swed*, *Tikta Ksheer Basti*, *Cincinnati* Knee score.

### Introduction

*Janu- Marma- Vighata* is a common problem of elderly people. Janu -being a *Vaikalyakara Marma* leads to structural as well as functional deformity on trauma.

Being the most weight bearing joint in the body, wear and tear is very rapid in this joint leading to degeneration.<sup>4</sup> External trauma, aging and obesity further hasten this process, worsening the symptoms.

When we go through the clinical features of osteo-arthritis knee of modern medicine, it closely resembles the *Janu- Marma –Vighataj, Janu-Sandhi-shool*.<sup>5,30,41</sup>

The treatment module available for osteo-arthritis knee as per modern medicine is analgesics, anti inflammatory drugs, NSAIDs, steroidal analgesics, arthroscopic lavage.<sup>38,35</sup>. The route of administration is usually oral or injectable. These medicines give instant relief but have very grave side effects and complications. They are known to cause toxicity in the vital organs of human body mainly the kidneys. Chronic renal failure, acid peptic disease are some to name<sup>1</sup>.

It is the need of hour to come to have a treatment module which should satisfy the following criteria:-

1. The module should be used locally.
2. The administration should be safe.
3. The total cost of treatment module should be affordable to all economy classes.
4. The administration should be painless.
5. It should be non-toxic.
6. The ingredients should be freely available.
7. The treatment should not be very lengthy.
8. The results of the treatment should be long -lasting.
9. The treatment can be taken on OPD basis. Hospitalization should not be mandatory.

Hence in the current study three group modalities were tried viz.

- 1) *Cap. Pirox -20mg O.D.*
- 2) *Nirgundi-Patra-Pottali-Swed alone*
- 3) *Nirgundi-Patra-Pottali-Swed +Tiktaksheer-Basti*

### Hypothesis

- H0 (Null Hypothesis) – There is no significant difference in *Janu-shool* due to osteoarthritis between three groups
- H1 (Alternative Hypothesis)- There is significant difference in *Janu-shool* due to osteoarthritis between three groups.
- H0 (Null Hypothesis) –There is no significant improvement in *Janu-shool* due to osteoarthritis, pre and post treatment in GrA, Gr. B, Gr C.
- H1 (Alternative Hypothesis) - There is significant improvement in *Janu-shool* due to osteoarthritis, pre and post treatment in GrA, Gr. B, Gr C.

**The study is Observational / Experimental, longitudinal, based on casestudy.**

### Research question

Which treatment protocol is the most long lasting effective in *Janu-shool*, - due to Osteoarthritis, from the three mentioned groups of treatment in the current study?

### Aim And Objectives

**Aim :-** Assessment of comparative treatment protocol in the management of *Janu-shool* with special reference to osteo-arthritis knee.<sup>34</sup>

### Objectives :-

- To bring down the morbidity due to *Janu-shool*.
- To maintain the routine activities of patients symptom-free.
- To slow down the progress of the disease.
- To postpone the surgical intervention in cases of severe osteo- arthritis.

**Materials and Methods:****Materials**

The material used in the treatment modalities are as follows:-

1. For Nirgundi –patra-pottali - Nirgundi –patra + Til Taila
2. For Tikta ksheer Basti. :Guduchi <sup>2</sup>+ Godugdha(Guduchi Kheerapaka)+ Goghrit + Til-Tail
3. Cap. Pirox 20mg<sup>18</sup>

**Methods:** 50 patients of each group for a week

**Statistical techniques**

**Wilcoxon signed rank test ( Z ):-** Used to test the significance of each treatment protocol before and after treatment.

**Anova test ( F ) :-**To test the most significant relief giving group.

**Scale for assessment of result:-**

<b>Symptoms</b> Score ↘ ↓	<b>Pain</b>	<b>swelling</b>	<b>Giving -way</b>	<b>Overall activity level</b>	<b>Walking</b>	<b>Stairs</b>	<b>Running activity</b>	<b>Jumping/ twisting activity</b>
Nil	20	10	20	20	10	10	5	5
Min	16	8	16	16	—	—	—	—
1+	12	6	12	12	8	8	4	4
2+	8	4	8	8	6	6	3	3
3+	4	2	4	4	4	4	2	2
4+	0	0	0	0	2	2	1	1

**Observation and Results**

<b>Parameters</b>	<b>Group A (%)</b>	<b>Group B (%)</b>	<b>Group C (%)</b>
Pain	12.4	59.5	100
Swelling	10.95	52.94	100
Giving way	10.79	49.25	76.22

Overall activity level	13.6	59.02	89.63
Walking	5.9	33.33	59.15
Stairs	5.15	32.33	62.67
Running activity	6.4	30.3	53.55
Jumping /Twisting activity	4.72	26.92	46.94
<b>Total</b>	<b>9.99</b>	<b>47.7</b>	<b>82.23</b>

## Discussion

After the thorough study of all the parameters and aspects it was seen that the third group i.e. Patients treated with Tikta- Ksheer-Basti + Nirgundi patra pottali sweda proved to be most effective protocol with comparatively long lasting relief. The relief in all the parameters is statistically convincing and encouraging.

### Probable mode of action of Tikta- Ksheer-Basti<sup>6,29,31,7</sup>

When there is Vaayt vrুদ্ধi, it leads to Asthi Kshaya, even being Ashrayashrayee bhaav.(container-content relationship) Diseases caused by decrease of Asthi should be treated by use of enemas prepared with drugs of bitter taste and those prepared with milk and ghee,honey.<sup>20,21,32</sup>

Bones are rigid in nature and in Asthi- kshaya ,they become brittle i.e. the Kharatwa gets reduces .Due to Vata- Vrুদ্ধi,which is the main culprit of Asthi- kshaya-there is dryness i.e.Rookshatwa in Asthi-Dhatu. To treat this Asthi-kshaya and Vaat-vrুদ্ধi-lubriation

i.e.use of Snigdha Dravya is a key point. But the use of Snigdha -Dravya makes the entity i.e. the bone, soft as a rule.In this context, we need Snigdhatva which will induce rigidity and not softening.

This purpose is solved by using Basti -Dravya containing milk, ghrit along with Tikta Dravya as the main ingredient, infused in large intestine where the anatomy of the organ encourages the mode of action of Basti-dravya 1,8- 14,19,22,24-27,39,33,36,37,40

### Probable mode of action of Patra Pinda Sweda:<sup>3,15,17,</sup>

**Drug effect:** The Nirgundi Patras used for the Patra Pottali Sweda is Vatashamaka,<sup>16,28</sup>

**Thermal effect:** effect: Diffusion through the skin is a temperature dependent process (According to Kligman), so raising the skin temperature will enhance the Transdermal delivery of various drugs by increasing skin permeability, body fluid circulation, blood vessel wall permeability, drug solubility

**Procedural effect:** By stimulating lymphatic flow and generating heat through friction

(rubbing) and application of the oils, massage cleanses and vitalizes the body without causing the build-up of toxins.

### Conclusion

1) It can finally be concluded that The Nirgundi –Patra –Pottali Swed along with Tikt-Ksheer-Basti can be an effective protocol of choice in treating the symptomatology of *Janu-shool* due to Osteo-arthritis knee. 2) The above protocol does not cause any correction of the varus deformity. 3) There is no change in the gait but the walking is painless.

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