

Effect of Suchivedhan Karma in Janu Sandhi Shool W.S.R. To Physiology Of Pain:- A Case Study .

1.Dr. BhanuMahajan, 2.Dr .Ravindra S. Dhimdhome, 3.Dr .Yogesh Shevale

*PG Scholar, Department of Kriya Sharir, Government Ayurvedic College, Dharashiv, Maharashtra, India.
Professor & H.O.D, Department of Kriya Sharir, Government Ayurvedic College, Dharashiv, Maharashtra, India.*

Assistant Professor, Department of Kriya Sharir, Government Ayurvedic College, Dharashiv, Maharashtra, India.

Date of Submission: 15-05-2024

Date of Acceptance: 25-05-2024

ABSTRACT:-

Suchivedhana terms as Viddhakarma which is classical treatment for pain management as described in Sushruta Samhita .This is most widely Popular day by day in pain management and used as alternative therapy in the management of Musculoskeletal disorders like Low Backache, Knee Joint pain , Cervical Pain. Pain is the common complaint in any musculoskeletal disorder and work related to pain management increasing day by day in present era to reduce cost effectiveness .In ayurvedic literature vatadushti leads to ruja ,shoola which can be treated by Suchivedhana (Viddhkarma). In ayurveda ,variousparasurgical procedure were mentioned for vata and kapha dosha and suchivedhanais one among them.. Suchivedha may release vatavarodh and ultimately pain will be decreased.Due to this and cost effectiveness,it has been recommended in various musculoskeletal disorders. Ayurvedic viddhakarma originated from practice of using needles over tender ponits and the knowledge of pressure points (marmashtana)leads to specifypain . So in this case study ,patients of janu Sandhi shula (knee Joint Pain) kept under Suchivedhana (Viddhkarma) therapy upto satisfactory level of relief from pain.

KEYWORDS: Suchivedhana, Viddhkarma, Knee Joint Pain, Vata dushti

I. INTRODUCTION:-

Ayurveda is “The Science of Life”. It is a science dealing with physiological and pathological status of human body. Ayurveda is Upaveda of Atharvaveda.Originally there are four Vedas; Rigveda, Yajurveda, Samaveda, and Atharvaveda. These Vedas include topics like health, astrology, spiritual business, poetry and ethical living etc.

इहखलुआयुर्वेदंअष्टंगमुत्पगमृअथर्ववेदस्य।

(सु. सू. १/६)

Pain is the most common symptom, it is universally accepted as a signal of disease that brings the patient to a physician’s attention. It is a sensation where other inputs such as emotional distress or spiritual distress may evoke the same overall feeling as a physical injury.^[1] Any pain either of moderate or higher intensity is accompanied by anxiety. It disturbs the routine life of patient. Patient becomes worried or anxious to get relief from the pain.

In the modern science, there are various remedies in the form of drugs or injections for relieving pain. These remedies are induced generally NSAIDs and Steroids.^[2] All these medications adversely affect Liver and Kidneys i.e. Raktavaha and Mutravahasrotas. They need to be taken whenever required and provide only temporary relief from pain. They produce hyperacidity and also peptic ulcer disorder, by irritating gastric mucosa. It also requires regular exercises of joints to prevent over tightening. So, for regular follow ups, patient has to go to physiotherapist, which is time consuming and too costly.

In textual references of Ayurveda, the symptom pain is closely related to Shool or Vedna. In this condition, the vitiated humourVata is localized in different regions of body like Asthi, Sandhi, Kati, Prushtha and produces pain. When Vata gets vitiated, it dries up the ligaments of the joints and constricts the Snayu present there and causes pain at that joint.

In Ayurveda, there are various methods used for treating different types of pain like shoulder pain, knee joint pain etc. These Ayurvedic methods are simple, safe, effective and economically least cost for the patient e.g. Siravedha, Agnikarma, Basti, Snehana, Swedana, and oral medication. It is very important to reduce pain associated with various disorders while treating the patient by Ayurvedic line of treatment.

Patient having pain is always restless, that causes obstruction to his daily routine activities. Patient always expect a quick relief to his pain. So, it becomes mandatory to find out some effective methods of treatment to relief pain.

In Sushrut Samhita, eight types of Shastra Karmas are explained.

The Vedhan Karma can be done by different instruments out of which Suchi is also mentioned by Sushrut Samhita.

In Ayurveda, pain (Vedna) is due to Vataprakopa. Acharya Charaka has explained causes of Vataprakopa as Dhatukshaya and Margaavrodha.^[3] Out of Tridosha, Vata is dominating and controller of the other two Doshas i.e. Pitta and Kapha.^[4]

Suchivedhan can be considered as modified form of Siravedha. According to Acharya Sushruta, Siravedha is called as Shalyachikitsaardha means the half part of the Shalya Chikitsa.^[5] Acharya Sushruta has explained Vedhan of specific Sira in specific diseases.^[6] Siravedhan is done on the Sira that are clearly visible. But in case when Sira are not clearly visible, SuchivedhanKarma can be done.^[7] When Siravedha is performed, the most vitiated Dosha i.e. Rakta is released, similarly on Suchivedhan the most vitiated Dosha i.e. Vata is released.^[8]

Hence, Suchivedhan on the maximum tenderness points of joints may release the Vata avrodha or vitiated VataDosha and eventually pain will be reduced instantly. When pain is reduced, the patient will surely try to make active movements. This instant relief from pain is of no cost and will be as miracle for the patient.

II. REVIEW OF LITERATURE

In Sushrut Samhita, there are two types of Asthi-Sandhi (joints)^[9]

1. Chal (movable)
2. Achal (immovable)

The joints having wide range of movements are Chal Sandhi (movable joints). It includes Shakhas (joints of four limbs), Hanu (temporomandibular) and Kati Sandhi (vertebral joints). Rest all joints are Achal (immovable).^[10]

There are eight types of joints described by Sushruta Samhita, as follows:^[11] (Kor, Samudga, Tunnasevni, Mandala, Ulukhala, Pratar, Va yastund, Shankhavarta).

DOSHA PRESENT IN SANDHI: - ShleshakaKapha is present in joint as lubricant and helps in protection and movement of the Sandhi.^[12]

PHYSIOLOGY OF PAIN:

Pain is a subjective sensation. It occurs when tissues are being damaged and causing the person to remove the pain stimulus. Thus pain is a protective mechanism of the body.

Receptor organs for pain are redistributed throughout the body. The neuroanatomical basis of pain was recognized following identification of spinal nerve roots and the existence of medullary pathways specialized for pain. There is a multi-synaptic pathway system which relays in the reticular formation of the brainstem. Stimulation of these pathways causes perception of pain at the cortical and subcortical levels.^[13]

Stimuli for pain may be thermal, chemical, or electrical accompanied by a combination of other elements like fear, discomfort and autonomic changes.

Types of Pain:

1. Superficial/ cutaneous pain
 2. Deep pain (muscle, bone, joints)
 3. Visceral pain
 4. Referred pain
 5. Psychogenic/ functional pain
1. **Superficial/ cutaneous pain**^[14]: The stimulus is structural damage; localization is fairly accurate. It is of two types-
 - a. **Epicritic**: which is low threshold and requires lighter stimulus.
 - b. **Protopathic**: which is high threshold and requires stronger stimulus.
 2. **Deep pain**: It arises from deeper structures like muscle, bone, joints, ligaments etc. The cause may be ischemia or injury. The localization is more accurate when site of origin is nearer the surface.
 3. **Visceral pain**: Compared with somatic pain, visceral pain is diffused, less easily localized and often referred. It may be accompanied by either rise or fall in B.P. Muscular rigidity and hyperesthesia is commonly associated with visceral pain.
 4. **Referred pain**: Deep pain whether visceral or somatic may be misinterpreted as coming from some part of the body other than the site of origin. Reference of cardiac pain to left shoulder or diaphragmatic pain to the shoulder are well known example.

5. Psychogenic/ functional pain: A psychogenic basis for pain can be inferred when no satisfactory organic cause for it can be found and its distribution does not accord with a known anatomical pattern. Pain can be qualitatively classified as-

1. Pricking pain
2. Burning pain
3. Aching pain

Burning pain and aching pain results from stimulation of C-fibers whereas, pricking pain results from stimulation of Ad-fibers.

CLASSIFICATION DEPENDING UP ON DURATION

1. Acute Pain

Acute pain is a sudden sharp and intense (severe) pain of short duration. It is easily identified and described. It is localized in a small area before spreading to neighboring areas. Acute pain is usually caused by injury to tissues like muscle, bone or visceral organs, injury stimulates nociceptors (pain receptors). This type of pain appears when the injury heals. Usually, it is treated by medications.

2. Chronic Pain

Chronic pain is the intermittent or continuous pain with different intensities. It lasts for longer periods. It is not easily described as acute pain. Chronic pain is usually associated with a long-term illness such as osteoarthritis it is somewhat resistant to medical treatment.

CLASSIFICATION DEPENDING UPON COMPONENTS

Pain sensation has two components and accordingly it is classified into:

1. **Fast pain.**
2. **Slow pain.**

Fast pain is the first sensation whenever a pain stimulus is applied. It is experienced as a bright, sharp and localized pain sensation. Fast pain is followed by the slow pain, which is experienced as a dull, diffused and unpleasant pain.

Receptor for both the components of pain are same, i.e. the free nerve endings. But, afferent nerve fibers are different. Fast pain sensation is carried by Aβ fibers and slow pain sensation is carried by C type of nerve fibers

PROCEDURE REVIEW

SUCHIVEDHANA:-In Sushruta Samhita, "Siravyadha Vidhi Adhyaya" has been explained in which Vyadhana of specific Siras in specific diseases is mentioned. Actually this chapter is very much confusing. After going through it again and again, one can understand why Sushruta has used the word 'Vyadha'.^[15]

The word 'Vyadha' has so many meanings, which can be as follows;

1. To bore a hole to drain
2. To let out entrapped Vayu.
3. To let out entrapped circulation in blood vessels
4. To let out fluid in Jatodaka and Mutravruddhi.
5. To let out pus in Vridradhi.

This 'Vyadha' must be done by hollow needle. If the blood vessel is large, the blood can be evacuated. But if the Sira is non-visible, it is to be pricked by needle till it bleeds or may not bleed. To understand Viddha Karma, we must have the following concepts in our mind.

Sira always carry all Doshas i.e. Vata, Pitta and Kapha, along with Rakta.^[16]

Physiological and mental functions go well when Prakruta Vayu is moving in its own direction. Vitiated Vayu moving in Sira produces different Vata Vyadhi. Vedana indicates deranged or vitiated Vayu and this is the ideal indication for Viddha Karma.^[17]

Siravedha is broad term used for removal of blood. It could be of any type, Venesection, Leech, Horn, and Gourd, Scarification or even a prick.^[18]

In essence, the principle in this procedure is to remove vitiated blood. Another indication for Siravyadha is the failure to cure the condition by Snehana, Swedana, Lepas which are mainly used to cure pain.^[19]

Raktamokshana if performed in correct manner on proper indicated points results in relieving pain and reduction in severity. It also produces a state of well-being.

When Siravedha is performed, the most vitiated Dosha i.e. Rakta is released, similarly on Suchi-Vedhathe most vitiated Dosha is released.^[20]

A simple puncture also bleeds which is not revealed.^[21]

Interpretation of these results is as follows;

1. It removes the obstruction of blood vessels and establish circulation.
2. It reduces the load of pathogens circulating in blood.
3. It lets out the most vitiated Dosha first.

Depth of Vyadha Karma: Sushruta Samhita has mentioned properly the level of depth of Vyadha Karma according to the area where this procedure has to be performed. When it is performed on Mamsalpradesha, it is one Yava. In case of bone, the hole should be of Ardha-YavaMatra. On skin, it is Ardha-yavaMatra or VrihiMatra. The instrument should be used VrihimukhenYantra for Vyadhana in Mamsalpradesha. KutharikaYantra is to be used for Asthi-Vyadhana.^[22]

But for VyadhanKarma various instruments can be used as mentioned by AcharyaSushruta-[23]

For Suchivedhana we use Insulin needle No. 26. This needle has 13mm length (which exactly matches with the length of Vrihi), 0.45mm breadth. So it should be pierced 2mm to 4mm for skin, 4mm to 6mm for Mamsa and 6-10 mm for Snayu, Asthi and Sandhi.^[24]

AYURVEDIC ACUPUNCTURE NEEDLE:

Traditionally, many different types of needles were used for acupuncture and surgery. The term for needle is 'Suchi' which evolves from the word 'Suc' pronounced Sooch and means 'to point out, indicate'. As needles were also used for surgery, there were many different types used in India, such as Ara, Kuthari, Atimukha and Badisha. Different lengths and thickness were used dependent on the area to be needled. The original needle was not much different from the ones used today for suturing, (long, thin tubular length of metal or bone).^[25] Thorwald relates that Ayurveda used bone or bronze needles, both straight and bent. Whereas the suturing needles may have required a small hole for the insertion of thread and

a small curvature along its length for ease in suturing, the needle which was utilized for acupuncture did not require them. Consequently, various versions of acupuncture needles were created over years of practice. The features of traditional needle are as follows;

HANDLE- A needle made out of a long piece of metal (as for suturing) is not comfortable or functional for acupuncture; therefore an appropriate handle is often added. This handle is thicker (in diameter) than the needle and is often knurled or patterned to provide a non-slip grip for the fingers. The knurled handle needle allows scraping with the fingernail in order to promote pranic flow.

FINGERGUARD- A spherical metal ball which prevents the fingers from sliding off the handle and onto the blade is called finger guard. It is present between the blade of the needle and the handle. Also, it provides a safe stop when fully inserting the needle's blade through the skin, due to its rounded features. The finger guard represents the Chakra- the wheel of nature- and due to its curved surface is safer than a straight edge.

BLADE- The blade is a long, tubular thin strip of metal with a sharp point. This needle point is different from a hypodermic needle in that the Suchi is similar to the point of a bullet (rounded), while the hypodermic has a very sharp angular point. The Suchi tends to push aside muscle fibers, etc. when penetrating, while the hypodermic tends to cut through them instead, causing trauma and discomfort.

END- Many needles did not have an end to them, but rather the end was provided by the handle. Others have a spherical type of ball (similar to the finger guard) added to the end of the handle. This provided a stop for the fingers while removing needles. A fascinating addition to the Suchi was a spike made out of the same metal which allowed herbs to be spiked on the end of the handle, and then lit so that the heat could penetrate into the body of the patient, with the needle as the conductor.

DISPOSABLE NEEDLES:



DISPOSABLE NEEDLE OF 26 GAUZE:

AIMS & OBJECTIVES :-

1. To assess the effect of Suchivedhan Karma in the management of Janusandhishool.
2. To study physiology of pain in detail.

OBJECTIVES-

1. To evaluate the efficacy of Suchivedhan in knee joint pain
 2. To achieve immediate relief of pain.
 3. To evaluate the improvements in the movements of joint.
 4. To avoid the adverse effects of modern medicine e.g. steroids and NSAIDs.
- To reduce the cost of management

III. MATERIAL AND METHODS

Study design- Clinical trial study in the comparative manner containing following two groups;

Group A- [Experimental group]-Snehana and Swedana and SuchivedhanaKarma.

Group B-[Control group]-Snehana and Swedana.

Sample size- Total 10 patients, 5 patients for each group mentioned above **Sampling method-** 10 patients having knee joint pain were selected by random sampling procedure.

Selection Criteria:

1. Patients were selected with irrespective of Sex, Religion, Occupation and Socio-Economic status.
2. Patients fulfilling the inclusive Criteria.
3. Patients willing to participate in the study were selected by explaining them interventions in detail.

Inclusive Criteria:

1. Patients of either sex.
2. Between age group 30-60 years.
3. Patients irrespective of caste, religion, economical status.
4. IPD and OPD patients of Government Ayurved Hospital, Dharashiv.
5. All patients having pain and restricted movements at joint region or musculoskeletal pain.

Exclusive Criteria

1. Patients of Age below 30 years and above 60 years are excluded.
2. Patents suffering from major trauma having dislocation or fracture.
3. Patients suffering from any major systemic disorders like HTN, IHD.

4. HIV, HBsAg reactive patients are also excluded.

Ethical clearance:-Clearance form institutional ethical committee was taken.

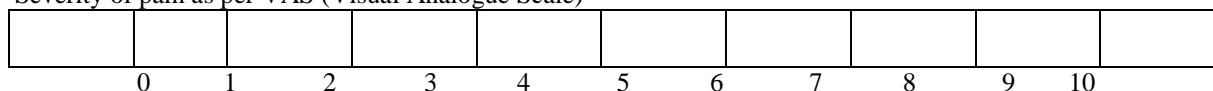
Consent:-An informed written consent of patient included in the study was taken as the language best understood by them. Their disease and line of treatment was explained to them.

CRITERIA FOR ASSESSMENT

Subjective Criteria:

Pain-

Severity of pain as per VAS (Visual Analogue Scale)



Grading of pain according to VAS

Pain score	Grade
0	No pain
1-3	Mild pain
4-6	Moderate pain
7-10	Severe pain

INVESTIGATIONS-

Hb% ,BSL-R ,BT, CT, HIV ,HBsAg was done to rule out any clinical pathology.

PROCEDURE-

- Detailed history of the patient was taken as per signs and symptoms observed in the patients.
- Clinical examination of the patient was done. Local examination of the knee joint was done to rule out any structural deformity.
- The patient was examined thoroughly- clinically like Respiratory system, central nervous system, cardiovascular systems were examined.
- Movements of the joint were observed.
- Only those patients were selected for the study who met with the inclusion criteria
- Patients were described the procedure in detail and assured.
- Written informed consent was taken before starting the treatment.

Parameters were the clinical grading on signs and symptoms.

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Mobility Gradation Chart

Grade 1- Normal movements with no pain

Grade 2- Restriction of movement with mild pain

Grade 3- Restrictions of movements with moderate pain

Grade 4- Restriction of movements with severe pain

- First of all, Snehan with Tila Tail was done on the local affected area.
- After that, NadiSwedan was given to the area.
- The patients of group B were given SnehanSwedan in the same manner as given to the patients of group A.
- After SnehanSwedan, the experimental group (group A) patients were again examined for the location of the most tenderness point.
- The tender points were marked by pen.
- The region was then cleaned with spirit swab.
- By using disposable needle no. 26, tender points were pierced at 45 degree angle upto depth 3-4 mm. The needle was placed in the same position for half a minute then it was taken out of the body. Such 5-6 pricks were taken on the marked points, so that the tender points should not be missed.
- The local area was again cleaned with dry gauze piece.

- The same procedure was done continuously for three days.
- No dressing was performed and the local area was left open.
- No analgesic and no antibiotic were prescribed to the patient.
- The disposable needle was used only once on the patient and was discarded after it was used once.

Duration of treatment- 3 days

Frequency- 3 times, once per day

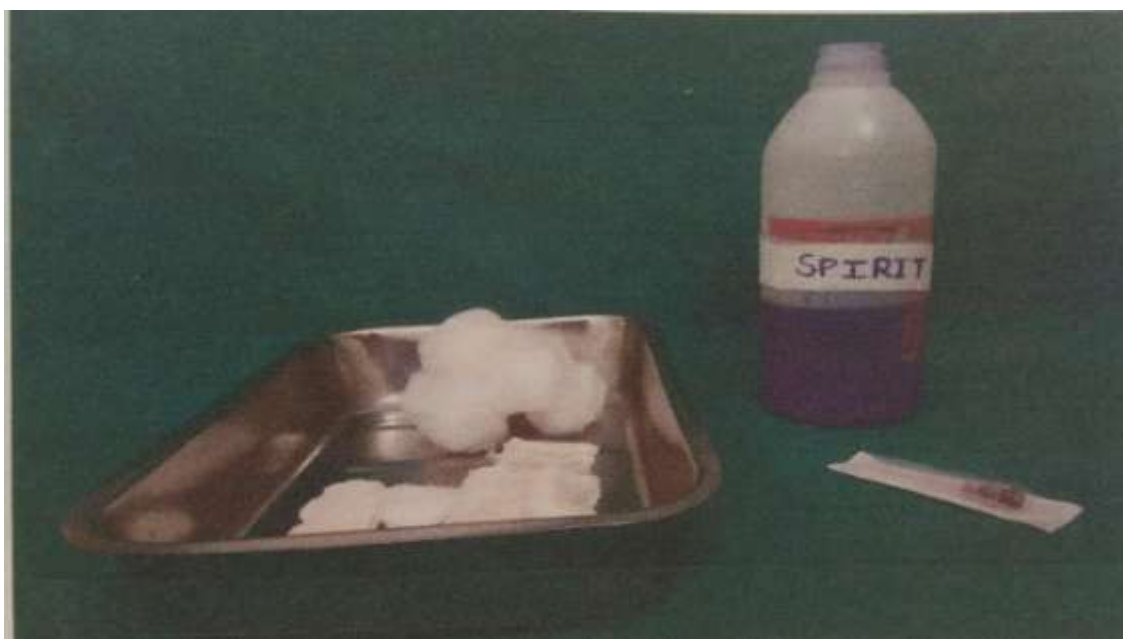
Follow up- 0 and 3rd day

The findings were recorded according to the follow-up chart.

Data recorded, maintained and analyzed. Details are discussed in the later section. The CRF is also attached .

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Data recorded, maintained and analyzed. Details are discussed in the later section. The CRF is also attached



MATERIALS USED IN SUCHIVEDHAN

Materials -

Literary source:

1. Classical text books
2. Articles from internet, journals and other published works.
3. Related source of data from internet

Clinical source:

Different patients having knee joint pain with or without tenderness were selected by random sampling method from OPD of our Hospital.

INSTRUMENTS:

1. **Disposable Needle-** The disposable needle selected for the research work is needle number 26. The hypodermic needles are made of stainless steel tubes of desired diameter. The disposable needle selected for the study was 26

Gauze. This needle was selected for the study for the reasons that it is short and thin needle. It is covered with a fine layer of silicon to allow it to pass through the skin easily with less pain. The 26 gauge needle's length is approximately 13mm and 0.45mm diameter with brown hub colour. It is also called as 'Brown needle'.

2. **Nadiswedayantra-** It is used for the Swedana.
3. **Spirit swab-** It is used for cleaning the local area before performing Suchivedhana.

Dry gauze piece- To clean the local area after the Suchivedhana Karma

IV. OBSERVATION AND RESULTS

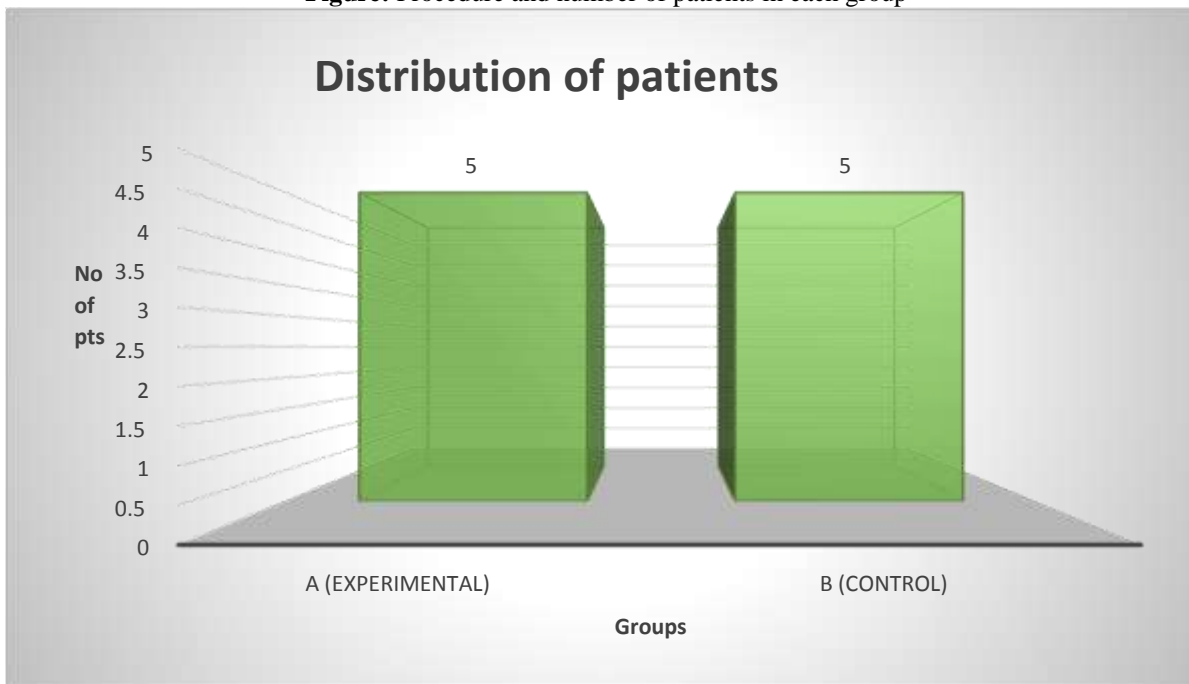
The study was conducted on 10 patients of either sex belonging to age between 30 and 60

years. The patients were randomly divided in two groups as follows;

Table: Procedure and number of patients in each group

Group	No. of patients	Procedure
A (Experimental)	5	SnehanSwedan and Suchivedhan
B (Control)	5	SnehanSwedan

Figure: Procedure and number of patients in each group



The experimental group was treated by performing SnehanSwedan and Suchivedhan and the control group was treated by SnehanSwedan.

Both the groups were treated for 3 days. The follow up was taken on 0 and 3rd day. Pre procedural and post procedural data was well maintained. The study was analyzed systematically. The following observations and results are obtained during the study.

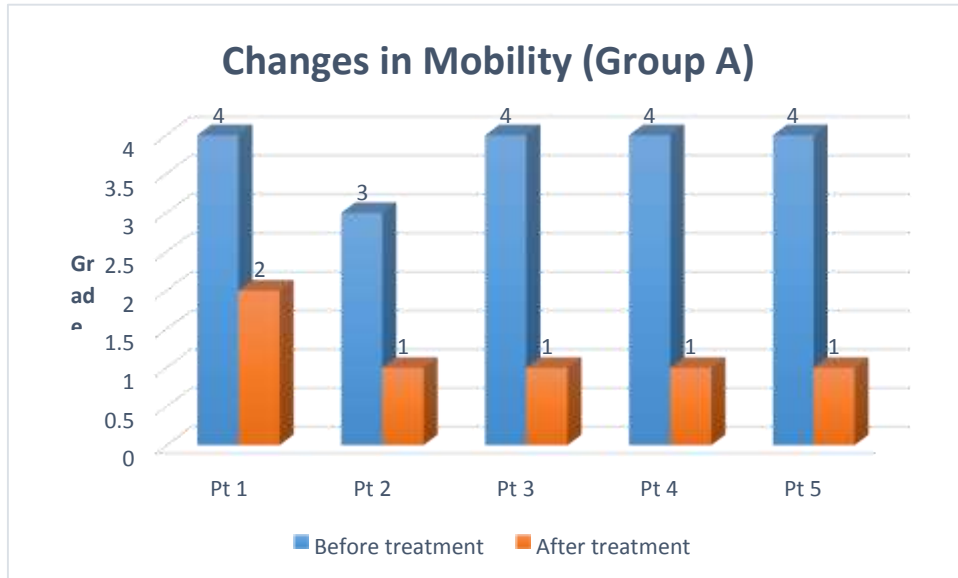
Mobility Gradation Chart

- Grade 1- Normal movements with no pain
- Grade 2- Restriction of movement with mild pain
- Grade 3- Restrictions of movements with moderate pain
- Grade 4- Restriction of movements with severe pain

Group A:

OPD No.	Age	Sex	Before treatment	After treatment
9640	37	Male	Grade 4	Grade 2
5584	38	Male	Grade 3	Grade 1
2008	40	Male	Grade 4	Grade 1
8039	38	Male	Grade 4	Grade 1
7423	35	Female	Grade 4	Grade 1

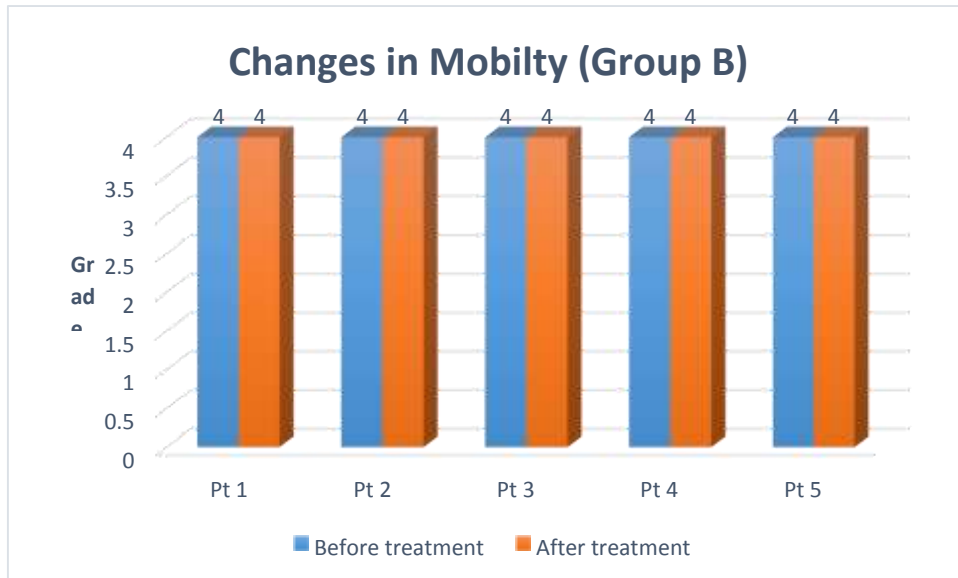
Figure: Changes in Mobility Group A



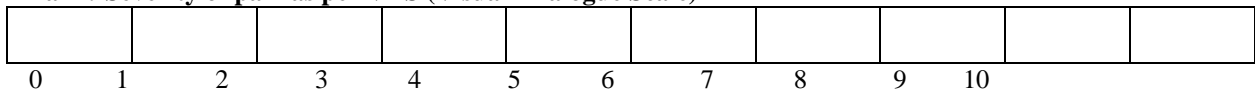
Group B:

OPD No.	Age	Sex	Before treatment	After treatment
9641	43	Male	Grade 4	Grade 4
1354	38	Female	Grade 4	Grade 4
8040	37	Male	Grade 4	Grade 4
7424	30	Female	Grade 4	Grade 4
9642	41	Male	Grade 4	Grade 4

Figure: Changes in Mobility Group B



Pain :-Severity of pain as per VAS (Visual Analogue Scale)



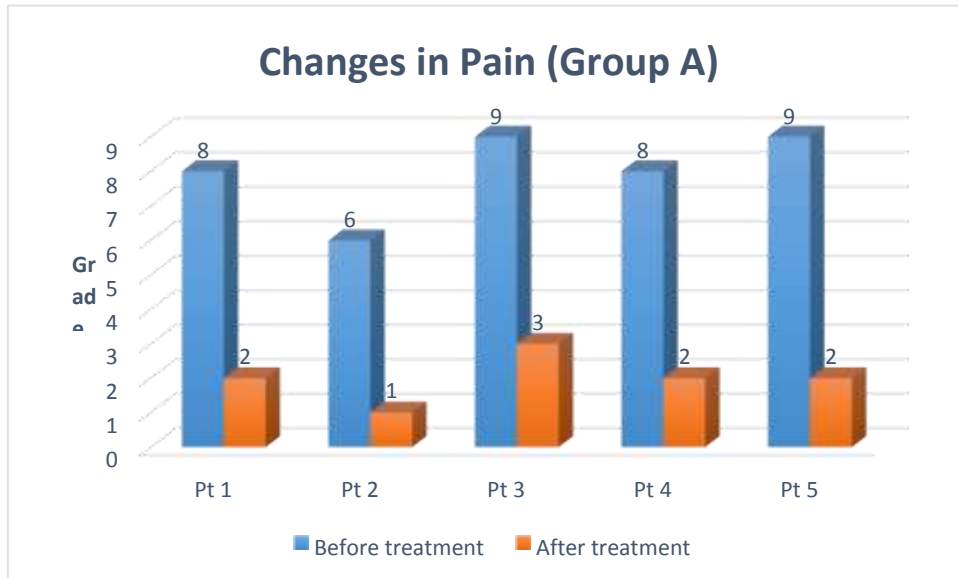
Grading of pain according to VAS

Pain score	Grade
0	No pain
1-3	Mild pain
4-6	Moderate pain
7-10	Severe pain

Group A:

OPD No.	Age	Sex	Before treatment	After treatment
9640	37	Male	8	2
5584	38	Male	6	1
2008	40	Male	9	3
8039	38	Male	8	2
7423	35	Female	9	2

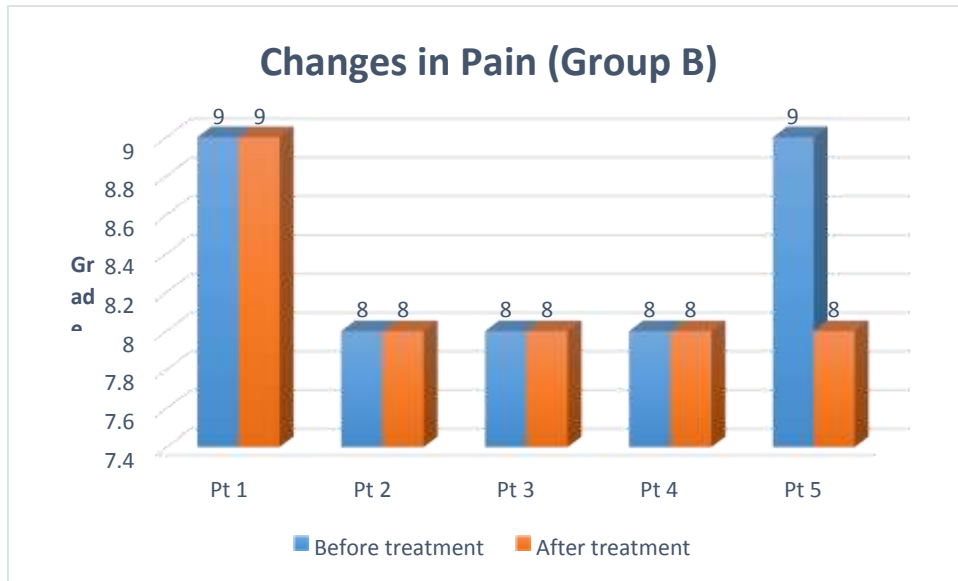
Figure: Changes in Pain Group A



Group B:

OPD No.	Age	Sex	Before treatment	After treatment
9641	43	Male	9	9
1354	38	Female	8	8
8040	37	Male	8	8
7424	30	Female	8	8
9642	41	Male	9	8

Figure: Changes in Pain Group B



Statistical Analysis (Mann-Whitney’s U Test)

1. Mobility

Table: Mann-Whitney’s U Test: Comparison Group A& B

Group	N	Mean Diff	Mean Rank	U	P
A	5	2.600	8	0.000	0.0079
B	5	0.000	3		

As value of P is less than 0.05, significant difference was found between mean differences of Group A and Group A. Mean difference of Group

A is more than that of Group B, hence it is concluded that Mobility is improved significantly in Group A than in Group B.

2. Pain

Table: Mann-Whitney’s U Test: Comparison Group A& B

Group	N	Mean Diff	Mean Rank	U	P
A	5	6.000	8	0.000	0.0079
B	5	0.200	3		

As value of P is less than 0.05, significant difference was found between mean differences of Group A and Group A. Mean difference of Group A is more than that of Group B, hence it is

concluded that Pain is decreased significantly in Group A than in Group B.

V. DISCUSSION

The discussion is very important in every aspect of life to add new dimensions and thereby improving its understanding. Any theory or study is accepted only after the proper reasoning of the observations. The present study entitled "EFFECT OF SUCHIVEDHAN KARMA IN JANU SANDHI SHOOL W.S.R. TO PHYSIOLOGY OF PAIN" was done on total 10 patients in two groups, each group having 5 patients. Group A (experimental group) was treated with SnehanaSwedana and Suchivedhana, whereas Group B (control group) was treated with SnehanaSwedana.

Pain- The visual analogue scale for pain was significantly improved in experimental group at the end of the treatment, and it is not significantly improved in control group after only SnehanaSwedana.

After Suchivedhana (along with SnehanaSwedana) there was a significant improvement in pain measured by visual analogue scale. The Suchivedhan works on the pain receptors called as nociceptors. Hence, it blocks the pathway of pain. Due to which there was a significant result in the pain after Suchivedhan karma.

The control group was given SnehanaSwedana for 3 days consequently. Here the classical treatment of Vata Vyadhi is utilized for the management of the pain condition. In all Samhitas, it has been well described and proved for many such types of pain conditions. It surely gives soothing effect at least immediately. The analgesics and physiotherapy being the foundation of the modern treatment, SnehanaSwedana was considered best for the control group.

AYURVEDIC ASPECT-

Vedhan and Visravan are two different Karmas mentioned by AcharyaSushruta. Siravedha is a wide term used for removal of blood. It could be of any type like venesection, leech, horn, and Gourd, Scarification or even a prick.^[26] If the blood vessel is large and clearly visible, the blood can be evacuated i.e. Visravana can be done. But if the

Sira is not visible, it is to be pricked by needle i.e. only Vedhan can be done here. To understand Suchivedhana, we have to clear the concept that Sira always carry all Doshas i.e. Vata, Pitta and Kapha along with Rakta.^[27] According to Sushruta, when Siravedha is done, the most vitiated dosha is expelled out first.^[28] The same mechanism can be applied for Suchivedhan Karma. In Suchivedhan, very low quantity of blood oozes out. Though the oozing blood is very minute, yet it may be sufficient to expel out the most vitiated Doshas. So, in joint pain, the vitiated Dosha- Vata may be released out after Suchivedhan, resulting in Vednashanti and relaxation of Sandhibandhan.

MODERN ASPECT-

According to modern science, the probable mode of action of Suchivedhan can be understood as follows;

Pain is a protective mechanism of the body, which occurs anywhere in the body. It is a somatic sensation. Receptors for pain in the skin and all other tissues are free nerve endings. These are present in the superficial layer of skin and also at joint surfaces.

There are three types of stimuli that excite the pain receptors;

1. Mechanical
2. Thermal
3. Chemical

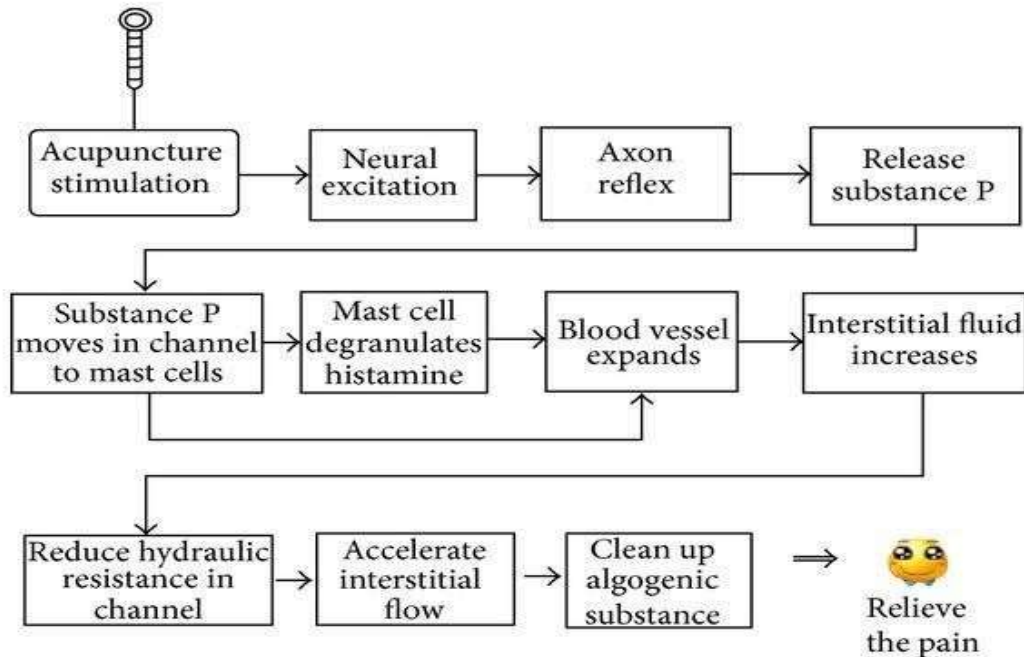
Transmission of pain signals to CNS is carried out by two main pathways;

1. Fast sharp pain pathway
2. Slow chronic pain pathway

Analgesia (pain suppression system in the brain)

Transmitters like enkephalin and serotonin are involved in analgesia system. Enkephalin cause both presynaptic and post synaptic inhibition of incoming type A and type C alpha pain fibers where they synapse in the dorsal horns. Hence, activation of analgesia system and inhibition of pain pathways can totally suppress many pain signals.

Pain receptors are also known as nociceptive receptors or nociceptors.



Damaging the nociceptive fibers can be a treatment for relieving the pain. The same mechanism is done in the Suchivedhan Karma.

Tender points are chosen for Suchivedhan. These points are the positions of the central fibers which are the most responsible for transmitting the pain impulse. Here, disturbance of the channel occurs which produce pain in the joint.

VI. CONCLUSION

Following conclusions are drawn-

- ✓ It is the misunderstanding that Ayurveda is not having instant management of pain and Ayurveda works slowly as there is no instant pain relief method in Ayurveda.
- ✓ The patient of experimental group respond well towards the treatment by Suchivedhan Karma.
- ✓ SnehanSwedan alone is not much enough in severe pain and restricted movements of joints, as patients reported no significant relief after 3 days of the treatment. Whereas SuchivedhanKarma gives instant relief from pain.
- ✓ The Suchivedhan procedure is well explained as chemical stimulation i.e. the production of endogenous morphine, which block the pathway of pain by blocking nociceptors.

- ✓ It works very fast as the relief was significant even after one to two days of the treatment. It proves that Ayurveda also has fast acting procedures.
- Suchivedhan is cost-effective and gives instant relief.
- ✓ Side effects of prolonged use of NSAIDs and steroids can be avoided by using Suchivedhan Karma.
- ✓ Hence it has been proved that Suchivedhan has significant effect in pain management. But it is also necessary to have further research works on large sample size and with more follow-ups.

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