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A ROLE OF AGNIKARMA IN PAIN MANAGEMENT

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ABSTRACT

Agnikarma is one of the important Para-surgical procedures described in *Ayurveda*, which has been widely used in the clinical practice now days. *Sushruta* has given detail description about *Agnikarma*. Superiority of *Agnikarma* over other the treatment modalities are timely described by our ancients because of its *Apunrabhavatva* i.e., no recurrence property. Pain (*Ruja*) is the cardinal feature of most of the musculoskeletal disorders and it can affect the quality of life. In modern lifestyle, patient needs instant relief from pain. Treatment available in modern medicine commonly NSAID's (Nonsteroidal anti-inflammatory drugs) but it has some hazardous effects on body. This review is an attempt has been made to study various research article, analyzed the role of *Agnikarma* and its applicability on various painful disorders which help to gain best knowledge about *Agnikarma*.

Keywords: Agnikarma, Dagdha, Cauterisation

INTRODUCTION

The word *Agnikarma* is combination of two words i.e., *Agni* and *Karma*, it means procedure done by the *Agni* to treat the disease. Application of heat directly or indirectly to the affected part of body. *Sushruta* mentioned the superiority of *Agnikarma* among all the para-surgical procedures and its importance explained in separate chapter in *Sutrasthan*. It has ability to cure the chronic diseases, which can't be cured by the *Bheshaja* (medicine), *Shastra* (Surgical interventions) and *Ksharakarma* (alkaline cauterization). It is mainly indicated in the disease caused by *Vata* and *KaphaDoshas*. Diseases of *Twacha, Mamasa, Asthi & Sandhi* with severe pain caused due to vitiation of *Vata*. Also, in *ShiroRoga, NetraRoga, VartmaGataVyadhi, Granthi, Arsha, Bhagandar, Arbuda, Shlipad, Charmakeela, TilaKalaka, AntraVrana, NadiVrana*, and in the diseases of the joints¹. According to *Sushruta*, if *Agnikarma* is performed in above diseases, will be less chances of recurrence and successful in curing the diseases². *Acharya Charak* has not described details about *Agnikarma* but mentioned as one of the treatment measures in different *Vatavyadhi* such as *Gridhrasi*³. In *Sushruta Samhita* different *Dahanopkarnas* and shapes are mentioned for *Agnikarma* as follows; *Twakadagdha -*

Pippali (Piper Longum), *Aja Shakrut* (goat excreta), *Godanta* (gypsum), *Shara* (arrow), *Shalakra* (metal rod) *Mamsadagdha - Jambhavsta Shalakra* and other metals. For *Sira, Snayu, Sandhi* and *AsthiDagdha - Kshaudra* (honey), *Guda* (jaggery), and *Sneha* (oil)⁴. Shape of *Agnikarma*: According to *Sushruta, Valaya*: (round shaped), *Bindu*: (dotted), *Vilekha*: (linear cauterization) and *Pratisarana*: (irregular shape)⁵ and according to *Vagbhata* three more types *Ardha Chandra, Swastika and Astapada*.

AIM:

To study Role of *Agnikarma* in Pain Management.

OBJECTIVES:

1. To review the research work related to *Agnikarma* for pain management on different musculoskeletal disorders.
2. To analyze the collected data and study the efficacy Of *Agnikarma* on pain management in various musculoskeletal disorders.

MATERIAL AND METHODS:

The related data was collected from various dissertations, published research articles and from search engines like Google Scholar, PubMed and from the classical texts of *Ayurveda*.

OBSERVATION AND RESULT:

Dr Shrikant Patel has conducted RCT *Agnikarma* with two different

Dahanupkarnas in Gridhrisi (Sciatica) as a PG dissertation. In this study total 30 patients were divided into two groups of two different

Dahanupakarnas i.e., instruments *Lohashalaka* and *Pippali*. Follow up taken on 7th and 14th day and assessment was done immediately after the treatment. Results shown in *Shalaka* group mean score of pain which was BT-2.07 reduced to AT-0.73, after first follow up reduced to 0.67 and last follow up was same with 64%, 67.6% and 67.6% improvement respectively. Mean score of tenderness which was BT-1.60 reduced to 0.47 with 70.6% improvement which was same after first and last follow up. there is marked improvement observed in 9 patients (60%), moderate in 6 patients (40%) and there are no patients with mild improvement was found. in *Pippali* group mean score of pain which was BT-1.93 reduced to 1.00 after treatment, after first and last follow up was same reduced to 0.87 with 48%, 55% and 51.8% improvement respectively. mean score of tenderness which was BT-1.93 reduced to 0.87 with 55% improvement after treatment which was same after first and last follow up, which is statistically significant ($P \leq 0.0001$). There is marked improvement found in 4 patients

(26. 66%), moderate in 9 patients (60%) and mild improvement was observed in 2 patients (13. 33%). So, conclusion made was *Agnikarma* with *Loha Shalaka* shows better result specially in reducing the pain than *Pippali* in all parameter in the *Gridhrasi*⁶.

Dr. A. Jayashree Prasad has conducted RCT as PG dissertation on *Agnikarma* along with *Yogaraja Guggulu Vati* as internal medicine in *Manyastambh* i.e., cervical spondylosis. In this study total 40 patients equally divided in to 2 groups. Group-A *Agnikarma* done with *Panchaloha Shalaka* in single sitting. 2nd sitting was done on 8th day when pain was not reduced there was no change in goniometer reading. Observation was made as before treatment, on 7th, 15th and 21st day and follow up was done once in a month for the duration of 3 months (90 days). In *Agnikarma* group it was observed that pain was 2.05 before treatment it reduced to 0.60 at end of treatment which was same in group B, also reduces other symptoms like tenderness, stiffness etc with p value is less than ≤ 0.0001 which was highly significant. At the end of Treatment result shown in *Agnikarma* group was 10 (50%) had good response, 7 (35%) moderate and 3 (15%) poor response. In Group of *Yogaraja Guggulu Vati* there was good response shown in

8 (40%), 11 (55%) moderate and 1(5%) had shown no response. This study observed that efficacy of *Agnikarma* was found slightly superior in view of instant pain management to *Yograj Guggulu* as internal medicine⁷.

This was a RCT study of *Agnikarma* on frozen shoulder conducted by Dr. Megha Tyagi as a PG dissertation. In this study total 30 patients equally divided into two groups of *Agnikarma* by mixing *Guda*, *Madhu* and *Ghrita* and wax bath therapy on affected shoulder with 2 - 3 sittings in a day daily for duration of 15 days. Assessment done on 5th, 10th and 15th day and follow up was taken after at end of 1 month treatment. It was observed that after 3rd follow up result almost same in both the groups which were statistically significant. In *Agnikarma* group It was observed that pain was 2.2 before treatment it reduced to 0.4 at end of treatment with the P-value <0.01 It also reduces other symptoms like tenderness, stiffness etc with p value is less than ≤ 0.0001 which shows that *Agnikarma* is significantly effective to reduce pain and local tenderness. Overall assessment shows that 1 patient had no improvement, 1 had mild, 3 had moderate, 8 had maximum improvement and 2 had completely cured in *Agnikarma* group.

Conclusion made on this study was that *Agnikarma* with *Guda*, *Madhu* and *Ghrita* shown more effective result compared to wax bath therapy in relieving the pain tenderness and other sign and symptoms of frozen shoulder (*Avabahuk*)⁸.

Dr. Vyasdeva Mahanta conducted study on *Agnikarma* in cervical spondylosis. Total 33 patients selected for trial and divided into two groups. Out of them 21 completed the treatment in both groups. 11 patients treated by *Agnikarma* with *Panchadhatu Shalaka* and 10 patients treated by *Trayodashanga Guggulu* internally for duration of 1 month. Total 4 sittings of *Agnikarma* were done with follow up at interval of every 7th day. Results are shown as improvement in reducing sign and symptoms of cervical spondylosis. In *Agnikarma* group, 18% patient completely cured without recurrence, 18% had marked improvement and 63% got improved and in *Trayodasanga Guggulu* group 10% patients were cured, 30.00% had marked improvement and 60% got improved. The conclusion was that *Agnikarma* therapy is more effective for instant relief from pain and other symptoms in cervical spondylosis⁹.

Dr. Suresh and Dr. Yogesh Badwe conducted the review study on *Agnikarma* in which detail description of about

Agnikarma its indication, contraindication given and some research papers were reviewed which showed *Agnikarma* is helpful in *Agnikarma Sadhya Vyadhi* mentioned in Samhitas and it has good pain relieving effect in management of diseases like plantar fasciitis, frozen shoulder osteoarthritis and other musculoskeletal disorders¹⁰.

DISCUSSION:

In above studies different types of metal and non-metal materials i.e., *Dahanopkarana* used for *Agnikarma* procedure, *Shalakas* (metal rod) like *Suvarna Shalaka* (gold rod), *Rajat Shalaka* (silver rod), and *Tamra Shalaka* (copper rod), *lauha Shalaka* (iron rod) and *Panchadhatu Shalakhya* (rod made of five types of metal). Non-metal materials like *Pippali* (Piper Longum), *Ajashakrut* (goat excretact), *Kshaudra* (honey), *Guda* (jaggery) and *Sneha* are used in various painful disorders. *Agnikarma* were done in Multiple sittings in different articles which was completely depends on remission of mainly pain in various disorders, still 2 to 3 sittings were performed in various studies. Some papers show that heat energy is important to relieve the pain. Metal *Shalaka* more potent because of heat retention and transmission capacity is more than 150oC temperature and it can burn epidermis layer

(*Twakadagdha*) which is important in *Agnikarma*. Non-metals material like *Pippali* found less effective because of its low temperature retention capacity and it burns only superficial layer of skin. Different *Shalaka* were use in various musculoskeletal disorders but result was statistically same in different articles. *Sushruta* has described *Agnikarma* ineffective when there is *Atyugraruja* (intense pain) in *Snayu-Sandhi-Ashti* i.e., musculoskeletal disorders.¹¹ *Agnikarma* was useful for immediate pain relief and same was observed in above different research papers.

Probable mode of action of Agnikarma -

Agnikarma act on a multi-factorial level in the body and its importance lies in its action. Exact mechanism action of *Agnikarma* still remains unsolved. Some theories can be adopted to explain these mechanisms but their action varies according to the condition. According to *Ayurveda* it acts against *Vata* and *Kapha Doshya* by its *Ushna* (hot), *Tikshna* (penetrating), *Sukshma* (minute), *Laghu* (small), *Vyavayi* (quick acting), and *Vikasi* (quickly spreading) *Guna* and it breaks *Srotoavarodha*, produced due to *Vata* and *Kapha*, results in relieving pain and inflammation at that site¹². The heat therapy, which is given at the local or affected area, increases the local blood

circulation by vasodilatation, local metabolic process speedup, waste products get excreted, reduce edema, accelerate repair, and the which resulting in decreased intensity of pain¹³.

Agnikarma may stimulates the sensory receptor lying in the muscle, by sending a message to the brain which stimulates the pituitary gland to release endorphin which in turn binds with opiate receptors in the pain cells to block the pain stimuli. Endorphin is a naturally occurring neuro peptide and like morphine and other opiates it has a marked propensity for binding on to the “opiate receptors” of the pain cell in the brain¹⁴. The pain receptors in the skin and other tissues are all having free nerve endings, due to hot *Shalaka* there is destruction of the free nerve endings and it causes, closing the “gate” and prevent the sensory transmission of pain¹⁵.

CONCLUSION:

From this review, it can be concluded that *Agnikarma* procedure can be done by using different materials and different temperature according to various painful conditions to mostly to relieve the pain immediately. It is a potent and minimally invasive Para-surgical procedure. Most of study conducted on musculoskeletal disorders like cervical spondylosis, osteoarthritis

of knee joint, painful heel like plantar fasciitis, calcaneal spur, tennis elbow, sciatica, frozen shoulder, corn etc. from this review can be concluded that *Agnikarma* with different kind of *Shalakas* is found significantly effective in pain management in musculoskeletal disorders in almost all the studies. It can be performed combination with other supportive oral medications. It is simple, effective, convenient and economic for the patient with no or minimal complication. More scientific and Molecular studies are required to know the exact action and its applicability on the large scale.

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