

“ ARTHROTHERMIA” – A revolutionary approach for *Pain Management in Osteo-Arthritis*”

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❖ Abstract:

Introduction: Osteoarthritis is one of the most common disease which is on the rise in our community. Long term uses of pain killers are not preferable by majority of patients. Invasive treatment is always last choice. There is a long term need to find out an effective, faster and safer treatment.

Aim and Objects: To prove effectiveness of ‘Arthrothermia’ procedure in pain management of Osteoarthritis.

Material and Methods: Total 127 patients having Osteoarthritis were selected randomly for the study from Ayulink Ayurveda Hospital, Ahmedabad. All patients were treated with ‘Arthrothermia’ procedure, following its protocol. Assessment was done based on objective and subjective criterions.

Result: In the present study, percentage of patients with much improvement was 75.59%. Moreover in 17.32% of patients experienced marked improvement, while 5.11% of patients experienced no significant improvement.

Conclusion: ‘Arthrothermia’ procedure is found quick and effective approach in the management of Osteoarthritis.

Key words: Arthritis, Pain, Arthrothermia, Osteoarthritis, kshar, agnikarma, suchika, cautery, alkali, thermal

INTRODUCTION:

Osteoarthritis (OA) is a long-term chronic disease characterized by the deterioration of cartilage in joints which results in bones rubbing together and creating stiffness, pain, and impaired movement. 80% of those with osteoarthritis will have limitations in movement, and 25% cannot perform their major daily activities of life. According to the United Nations by 2050, 130 million people¹ will suffer from OA worldwide, of whom 40 million will be severely disabled by the disease. Invasive treatment is always last choice by most patients. In such condition, there is a necessity to find out an effective, faster and safer treatment. Arthrothermia procedure can be best complimentary treatment for such people.

According to Ayurveda, this is a disease of *Asthivaha Srotasa* i.e. skeletal system. Increased *Vata* affects *Sandhi* i.e. joints of the body and thus create *Sandhivata*. Aggravated *Vata* affects both (small and large) joints, producing pain and swelling in them. The joints appear as if they are filled with air, and the movement of joints becomes very difficult. This condition is called ‘*Sandhigata Vata*’ (*Cha. Chi. 28/37*).

Such affected joints when they move, produce sounds and the movement becomes painful (*Madhava Nidana*).

Arthrothermia is a revolutionary concept of combining multiple actions and materials – such as use of *Kshar*, *Suchikavedhanam*, *Suchikarabharanam* and *Agnikarma* described in classical text books of Ayurveda. Heat generated by combination of these maneuvers to improve blood circulation to the ligaments and muscle involved, pacifies pain and tenderness; and also helps arrest stiffness, and improves flexibility. In short, the idea to combine *ksharkarma* and *agnikarma* processes, using *suchika* and targeting the specific muscle / ligaments in the pain management {combining the use of (herbal) alkaline cautery and indirect thermal microcautery}, in a precise form is developed by Dr. Prerak Shah and named it Arthrothermia (patented).

Aim and Objects: To prove effectiveness of ‘Arthrothermia’ procedure in pain management of Osteoarthritis.

MATERIALS AND METHODS:

Conceptual study and Clinical study were performed. All textual quotation & available commentaries along with their modern parallels were referred for these studies. A protocol was designed and followed during this study.

Methodology:

According to protocol, the Arthrothermia procedure is divided into three parts;

1. Identification of location (muscle and ligament stiffness)
2. Application of *Kshar* (FDA-India approved formulary “ISAT”)
3. Application of Indirect Thermal Microcautery (ITM)

Special instruments were designed and developed for the purpose. Multi-inserter and pre-sterile micro needles are used for the application of *Kshar* (क्षारकर्म) in micro quantity, applying the ayurvedic concept of *Suchikavedhanam* (सूचिकावेधनम्) and *Suchikabharanam* (सूचिकाभरणम्). While electro-thermal cautery machine was used for Indirect Thermal Microcautery (ITM) (अग्निकर्म).

CRITERIA FOR SELECTION OF THE PATIENT:

- A special Performa for the present study was prepared in which detail history and physical examination on the basis of principles of Ayurveda & modern science. (Annexure A)
- Patients were selected from the O.P.D. of AYULINK AYURVEDA HOSPITAL, AHMEDABAD.

Inclusion Criteria:

- Patients presented with the classical as well as Modern signs and symptoms.
- Patients of either sex aged between 18 – 90 years were included.

Exclusion Criteria:

- Fever
- Pregnancy
- Uncontrolled DM
- High& Low Blood Pressure
- Below 18 years and above 90 years

- Any Critical Condition of patient

PLAN OF STUDY:

The research study was designed of Single therapeutic group. Total 127 patients were registered. The selected patients who fulfilled the inclusive criteria were treated with Arthrothermia procedure.

Table No. 1.1: Plan of Study

Group	No. Of Patient	Procedure	Duration	Follow-Up
A	127	Arthrothermia	Once in a week, Maximum 4 times (Max 4 week)	Every 3 Months for 1 year.

❖ CRITERIA FOR ASSESMENT:

1. Clinical improvement in sign & symptoms of disease.
 2. On the basis of personal experiences narrated by patients in follow ups.
- Assessment of the therapy has been done by preparing clinical Performa.

Table No. 1.2: CRITERIA FOR ASSESSMENT OF THERAPY DEPENDING ON THE IMPROVEMENT

Symptoms	Much Improvement	Marked Improvement	Not Significant Improvement
Pain	Relief from all symptoms (85-100 % Relief)	Relief from any two symptoms (25 -84 % Relief)	Relief from one or no symptoms (0-24 % Relief)
Stiffness			
Flexibility and Mobility of Joint			

❖ OBSERVATION AND RESULT:

All the patients were examined in detail with respect to the special Performa. Before starting the treatment, symptoms present in all patients were noted as before treatment (BT). After completion of treatment, they were noted as after treatment (AT).

Table No. 1.3: Age wise Distribution of Patients

< 40 year	41-59 year	> 60 year	Total
08	63	56	127

Table No. 1.4: Sex wise Distribution of Patients

Male	Female	Total
30	97	127

Table No. 1.5: over All Effect of The Treatment

Effect of therapy	Out of 127 Patients	Improvement %
Much improvement (85-100%)	96	75.59 %
Marked improvement (25-84%)	22	17.32 %
Not significant improvement (0-24%)	7	5.11 %
Skipped	2	1.57 %

❖ **Probable Mode of Action of Arthrothermia:**

It is a combination of ksharkarma and agnikarma treatments described in classical text books of Ayurveda. As we described earlier, when provoked Vayu is lodged in Asthi-Sandhi-Sira-Snayu, it results in pain and stiffness. So our line of treatment should be the removal of Vayu from that Particular site. Vayu is Sheeta in nature. Heat provided by Arthrothermia procedure, due to its Ushna Guna, pacifies the Sheeta Guna of Vayu and removes it from there. By removal of Vayu from affected site, patient gets pain relief.

❖ **CONCLUSION:**

- ❖ Arthrothermia procedure has shown fastereffect and much relief in Osteoarthritis.
- ❖ It has provided better relief than any other treatment available right now.
- ❖ No internal medicines were given to the patient.
- ❖ Long term relief from the symptoms without any internal / external treatment.
- ❖ No side-effects are noted during study.

References

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