



A PRAGMATIC CLINICAL APPROACH ON EFFECTIVENESS AND MANAGEMENT OF JANUMARMABHGHATA

Rajeshwari ^{1*}, Chandini SG ², Anjana R ³, Anand S ⁴, Anupama S ⁵

¹Assistant Professor, Department of Shalyatantra, Prasanna College Of Ayurveda and Hospital, Belthangady, Rajiv Gandhi University of Health Science, Bangalore. Karnataka, India

²Professor Emeritus, Department of Shalyatantra, Government Ayurveda college Trivandrum, Kerala University of Health Science, Kerala, India

³Assistant Professor, Department of Kaumarabryta, KMCT Ayurveda Medical College Mukkam, Kerala University of Health Science, Kerala, India

⁴Assistant Professor, Department of Roga nidana, Global Institute of Ayurveda, Rajkot, Gujarat Ayurved University, Gujarat, India

⁵Assistant Professor, Department of Kayachikitsa, MVR Ayurveda Medical College, Parassinikadavu, Kerala University of Health Science, Kerala, India

*Corresponding Author Email: aryapavithran92@gmail.com

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ABSTRACT

Ayurveda is one of the field which carries a huge acceleration in revitalisation. The rejuvenation of local health tradition had been continued after independence, though in a slow speed. The practice of *Marma Chikitsa* is more prevalent in Kerala and South Tamil Nadu and plays a key role even today. The importance of Ayurveda is even accepted by Western scholars in this high-tech era is worth to note. According to day-to-day clinical practise, Ayurvedic treatment shows better results in mild, moderate and severe cases of *Janumarmabhighata*. Hence, this study was undertaken to find out effective treatment for the *Vikaras* caused by *Janumarmabhighata*. 30 patients were selected for the current study according to derived inclusion and exclusion criteria, from OPD and IPD of Government Ayurveda college hospital, Trivandrum, Kerala. The case history of each patient was recorded as per the proforma designed. 10 patients were each tabulated under three groups containing *janumarmabhighata* lakshana like A, B, C groups (mild/moderate/severe) respectively, after assessing subjective and objective symptoms. Similarly, treatment protocol also was framed out in three different categories according to general line of management for *sandhimarma kshata* and *janumarmabhighata*. Remarkable improvement was noticed in each category after treatment. Assessment of clinical recovery in terms of pain, tenderness, swelling, wasting, muscle strength, flexion and extension in 3 groups were statistically also significant.

Key Words: *Janumarma, Janumarmabhighata, Marmabhighata*

INTRODUCTION

Ayurveda considers man as an epitome of universe. This science of life is one of the oldest living traditional schools of world. As a part of struggle for independence, the concept of endogenous development gained momentum in various fields in India. *Shalya tantra*, the specialised branch of *Ayurveda* is dealt with surgery and orthopaedic management along with the vernacular practice of *Marma Chikitsa* too.

Janumarma is a *Sandhimarma*¹ located in *Janusandhi* or knee joint and clinical cases associated with *janumarma abhighata* not so sporadic. Derangement in both stability and functioning of knee joint due to trauma occurs more frequently than in any other joint of body. A good number of acute and chronic cases of *Janumarmabhighata* treatment has shown better result in *Ayurveda*. Complications can be minimised by this treatment and it enhances the natural recovery. Specific treatment for this *Marmabhighata* is not mentioned in our classical text. So, this attempt is to formulate a systemic treatment for the same based on the treatment principles of *Acharyas* and to evaluate how far the *Ayurvedic* treatment is effective in *Janumarmabhighata*.

Objectives of study: To frame out a systematic and suitable treatment for *Janumarmabhighata* and evaluate it's efficacy in mild, moderate, severe injury cases.

MATERIALS AND METHODS

Source of data: Patients those who fulfilling both inclusion and exclusion criteria were selected and screened from OPD and IPD of Government Ayurveda college hospital, Trivandrum, Kerala.

Method of collection of data: The patient was selected as per the inclusion criteria from the *Marma* outpatient unit. They were treated as in patients. Patients were assessed before and after the treatment.

Inclusion criteria

1. Subjects above 15 years and below 50 years
2. The subjects must have a definite history of trauma on *Janumarma* and fulfilling general or specific symptoms of *Janumarmabhighata*
3. Subjects having three months duration with same symptoms

Exclusion criteria

1. Subjects with orthopaedic diseases like Rheumatic fever, Rheumatoid arthritis, Osteoarthritis or with general diseases like *Prameha, Pandu, Shosha* and *Sopha* and female patients having gynaecological diseases
2. Cases of severe fractures of knee
3. The cases of dislocation and recurrent dislocation

Duration of the study: Total duration of study is 18 months

Research techniques: The required data were collected from the patients before and after treatment. The case history of each patient was recorded as per the proforma designed. The patients were examined thoroughly and both subjective and objective symptoms were recorded. The clinical proforma was designed in consultation with subject specialist. Routine laboratory investigations were done and X-ray were used for confirmation.

The study was carried out as per International Conference of Harmonization-Good Clinical Practices Guidelines (ICH-GCP).

Study design: Patients were selected on the basis of case proforma and they were divided into group A, group B and group C based on the severity of signs and symptoms respectively. *Janumarma* is a *Sandhimarma*. So samanya sandhimarma kshata lakshanas along with janumarmabhighata lakshanas were tabulated for clinical assessment (Table 1). The specific symptoms of *Marmabhighata* were more severe in C group than in former group i.e., group A is having mild signs and symptoms, group B with moderate signs and symptoms. Similarly, treatment protocol also was framed out in three different categories according to general line of management for sandhimarma kshata and janumarmabhighata (Table 2)

Table 1: Assessment criteria for Subjects of Janumarmabhighata

Group A	Group B	Group C
Pain-mild – grade 1	Pain-moderate-grade 2	Pain-severe-grade 3
Tenderness-mild-grade 1	Tenderness-moderate-grade 2	Tenderness-severe -grade 3
Swelling-mild-grade 1	Swelling-moderate -grade 2	Swelling-severe-grade 3
Painful movements and impairment of movements	Moderate loss of movements	
No deformity	Mild deformity	Moderate deformity
No wasting	Mild wasting	Moderate wasting
No <i>Balakshaya</i> -muscle power	Mild <i>Balakshaya</i> -muscle power	Moderate <i>Balakshaya</i> -muscle power

Table 2: Treatment protocol for Subjects of Janumarmabhighata

Mild	Moderate	Severe
<i>Dhanwantaram Kwatha</i> ³	<i>Dhanwantaram Kwatha</i>	<i>Dhanwantaram Kwatha</i>
<i>Rasnaerandadi Kwatha</i> ⁴	<i>Rasnaerandadi Kwatha</i>	<i>Rasnaerandadi Kwatha</i>
<i>Nagaradi choorna lepana</i> ⁵	<i>Nagaradi choorna lepana</i>	<i>Nagaradi choorna lepana</i>
<i>Abyanga</i> with <i>Murivenna</i> ⁶ and bandage	<i>Abyanga</i> with <i>Murivenna</i> and bandage	<i>Abyanga</i> with <i>Murivenna</i> and bandage
-	<i>Dhanwantharam (21) avarthi</i> ⁷	-
-	<i>Yogaraja gutika</i> ⁸	<i>Yogaraja gutika</i>
-	-	<i>Gugguluiktaka gritha</i> ⁹
<i>Pathrapotali sweda</i>	<i>Pathrapotali sweda</i>	-
<i>Matrabasthi</i>	<i>Matrabasthi</i>	-
-	-	<i>Kayaseka</i> with <i>dhanwantharam thaila</i>
-	-	<i>Yogabasthi</i>
-	-	<i>Shastika Pinda sweda</i>

SUBJECTIVE SYMPTOMS

Pain, tenderness and swelling were selected as subjective symptoms and given with grading (Table 3, 4 & 5).

Table 3: Grading of pain

Grade	Features
0	No pain
1	mild
2	moderate
3	Severe
4	Very severe

Table 4: Grading of tenderness

Grade	Features
0	No tenderness
1	Patient complaints of pain
2	Patients winces with pain
3	Patient winces and withdraws the effected part
4	Patient does not allow to touch the effected part

Table 5: Grading of swelling

Grade	Features
0	No swelling
1	Mild swelling
2	Moderate swelling
3	Severe swelling
4	Very severe swelling

OBJECTIVE SYMPTOMS

Range of movement, muscle strength, improvement in quadriceps bulk, varum deformity and valgum deformity were selected as objective symptoms and given with grading (Table 6 (a), 6 (b), 7, 8, 9 & 10).

Table 6 (a) : Range of movement - Flexion grading

Grade	Flexion in degrees
A-normal full flexion	135 ⁰
B-loss of flexion	Knee joint lacks x ⁰

Table 6(b): Range of movement - Extension grading

Grade	Extension in degrees
A-normal	0°
B-loss of extension	The knee lacks x° of extension

Table 7: Grading of muscle strength

Grade	Features
0	No contraction
1	A flicker of contraction
2	Small movement with gravity counterbalance
3	Movement against gravity
4	Movement against gravity with some resistance
5	Normal power is present

Table 8: Grading of improvement in quadriceps bulk

Grade	Features
0	No wasting
1	Improved to 0.5 cm
2	Improved to 1 cm
3	Improved to 1.5 cm
4	Improved to above 1.5 cm

Table 9: Grading of varum deformity

Grade	Deformity in degree
0	No deformity
1	>10°
2	<10°
3	<15°

Table 10: Grading of valgum deformity

Grade	Deformity in degree
0	No deformity
1	>10°
2	<10°
3	<15°

OBSERVATION AND RESULT

The clinical study was conducted in 30 patients classified into 3 groups based on severity of science and symptoms.

Table 11: Mean± SD of presenting complaint score before and after 15 days of treatment and level of significance

Presenting complaint	Mean± SD of score		t value	P value
	BT	AT		
Pain	2.23±0.77	1.2±0.81	10.30	P<0.001
Tenderness	2.00±0.83	1.07±1.01	6.95	P<0.001
Swelling	1.63±0.67	0.93±0.78	4.71	P<0.01
deformity	3.97±5.42	2.20±3.52	2.51	P<0.05

Table 12: Mean± SD of presenting complaint score before and after 15 days of treatment and level of significance

Time of assessment	Wasting (CMS)		t value	P value
	Mean	SD		
Before treatment	37.14	3.25	-	-
After treatment	37.82	3.23	13.34	P<0.001

Mean±SD wasting in CMS before and after treatment and the level of significance

Table 13: Mean and SD of Muscle power according to time of assessment

Time of assessment	Muscle power		T value	P value
	Mean	SD		
Before	4.1	0.80	-	-
After 15 days	4.5	0.51	2.3	P<0.5
After completion of treatment	4.9	0.25	5.4	P<0.001

Loss of movement	Mean	SD	t value	P value
A) Flexion				
Before	72.41	19.9	-	-
After 15 days	95	18.7	4.56	P<0.01
After completion of treatment	117	18.1	9.10	P<0.001
Extension				
Before	-27.7	21.4	-	-
After 15 days	-14.5	11.30	2.98	P<0.05
After completion of treatment	-5.5	7.11	5.63	P<0.001

DISCUSSION

According to *Ayurveda*, *Vata vaigunya* is the cause of pain. The treatment given internally and externally are *Vatahara dravyas* and some are vasodilators. They increased cutaneous circulation. All the free nerve endings which are the pain receptors stimulated by external and internal medication. Thus, the treatment gave good result in relieving pain. Joint swelling is a result of accumulation of excess synovial fluid, pus or blood. Joint injuries cause synovitis. *Vata* and *Kapha* are dominated *doshas* here. All the internal drugs are *Vatahara* and *Kapha samana*. External

application like *Lepana*, *Swedana*, *Abhangya*, and *Bandhana* reduced swelling. *Murivenna* is highly beneficial in the management of *Abhigataja shopha*. Administration of *Dhanvantara kwatha* and *Dhanvantara taila* restores the normal bulk of muscle due to their regenerative capacity. *Yogaraja gutika* helped the improvement of wasting. *Guggulu tiktaka ghrita* destroyed the root cause of wasting i.e *Vata Vaigunya* and *Srotorodha*. *Abhyanga* with *Murivenna* and *Bandhana* helped to remove wasting. *Kayaseka* was very much effective in abolishing the wasting of muscle. It increases the muscle bulk and gives nourishment to the affected area. *Shastika pinda sweda* have

Snigdha-brimhana gunas, so it nourishes the bones and joints, strengthen the muscles. There was significant increase in muscle bulk and power. After full course of treatment, restriction of movement and deformity considerably reduced. The normal function of Vata i.e karma Karana shakti is restored by the treatment. Thus, the Vata in its healthy condition improves the movements and deformity.

CONCLUSION

All the patients have showed some sort of response to the treatment. The improvement was gradual in every case. No spontaneous recovery detected. Complications were minimised. The above study proves that majority of the cases of Janusandhi Marmabhighata were satisfactorily managed with systematic Ayurvedic treatment in mild, moderate and severe categories respectively. The improvement might be due to overall effect of different treatment procedures adopted.

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