

## MANAGEMENT OF JUVENILE IDIOPATHIC ARTHRITIS (JIA) WITH AYURVEDA - A CASE REPORT

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### ABSTRACT

**Abstract:** Juvenile idiopathic arthritis (JIA) is the most common form of childhood arthritis with current treatment protocol of oral medication along with physiotherapy as a main stay. This paper is the retrospective observation study of this condition in one patient receiving Ayurvedic treatment in Paediatric Unit of D. Y. Patil Ayurvedic Hospital. Despite vast range of NSAIDs, immunosuppressive agents, corticosteroids etc., the complete remission of this disease is still not possible. The symptoms of disease *Aamavata* in Ayurvedic classics have similarity with rheumatism as well as JIA in Paediatric age group. Improvement observed with Ayurvedic treatment is a good hope for the management of this ailment and new-fangled research area.

**Key words:** Juvenile idiopathic arthritis, Ayurvedic Management, *Aamavata*, *Panchakarma*

### INTRODUCTION:

Juvenile rheumatoid arthritis (JRA) is the most common chronic rheumatologic disease and the most frequent amongst chronic diseases of childhood and adolescents. Nowadays; JRA often referred as juvenile idiopathic arthritis (JIA)<sup>i</sup>. JIA is the umbrella term for a group of chronic childhood arthritis present with inflammation of joint and stiffness of unknown cause in children below 16 years of age and persisting for at least six weeks<sup>ii</sup>. Though common occurrence of this disease is mainly observed from the ages of 7 to 12, but it may also occur in infants<sup>iii</sup>. JIA affects both sexes but like other rheumatological diseases, more common in female. International prevalence ranges from 8 to 150 per 100,000<sup>iv</sup>.

The symptoms present in JIA are more comparable with features of *Aamavata Vyadhi* mentioned in Ayurveda classics<sup>v</sup>. Though it is not mentioned for

Paediatric field but due to its similar clinical appearance same reference require for Ayurvedic treatment.

### Case Report:

A 13 year old male child came to Paediatric OPD of Dr. D Y Patil Ayurvedic hospital with complaints of multiple joint pain, swelling, stiffness and restricted movements since more than 8 years. Due to this chronic and painful course of disease patient's functional capacities were disturbed and likely disable for many a things i.e. writing, cycling, playing inside & outside games and routines of daily living. Assessment of clinical examination revealed abnormal gait and subsequently led to inability to maintain posture. Changing of position from sitting to standing and vice versa was very much painful and comparatively slow. Examination of joints revealed signs of inflammation i.e. visible swelling, pain, tenderness and restricted movements. Bilateral knee, metacarpal and

elbow joints were involved along with lower lumbar and lumbo-sacral joints.

**Brief review of course of disease and past history:**

At the age of 4½ year patient started with on and off recurrent fever. Along with this, he developed multiple joint pain including small and large joints. Patient has taken allopathic medicine for the same which gave symptomatic relief but not at assured level. Parents were also suffering and tried many doctors in search for cure but disease condition was not improved

**Treatment:**

Table: 1 showing treatment schedule

<b>First Regimen:</b> Oral medication at OPD level for 30 days		
1	<i>Swadishta Virechana Churna</i> <sup>vi</sup>	2 gram at bed time with warm water
2	<i>Kaishora Guggulu</i> <sup>vii</sup> (250mg)	1 tablet twice a day with warm water after food
<b>Second Regimen:</b> Oral medication along with IPD admission 11 days		
1	<i>Chitrakadi Vati</i> <sup>viii</sup> (250mg)	1 tablet twice a day with water before food
2	<i>Kaishora Guggulu</i> (250mg)	1 tablet twice a day with warm water after food
3	<i>Rasnasaptaka Kwatha</i> <sup>ix</sup>	10 ml twice a day after food
<b>Panchakarma Procedures</b> (five purification methods of Ayurveda) for 10 days		
1	<i>Sarvanga Snehana</i> <sup>x</sup> (Oleation - whole body massage)	with <i>Vishagarbha Taila</i>
2	<i>Sarvanga Swedana</i> <sup>xi</sup> (Sudation - whole body steam)	<i>Nadi Sweda</i> <sup>xii</sup> method
3	<i>Vaitarana Basti</i> <sup>xiii</sup> (type of medicated anema)	mentioned in Table-8

**Assessment and Result:**

After completion of 41 days treatment including first regimen of internal medication and second regimen with added *Panchakarma* treatment, patient was observed for subjective and objective parameters. Assessment was conducted on day 1<sup>st</sup> and 42<sup>th</sup> using parameters of American College of Rheumatology (formerly the ARA) score<sup>xiv</sup> shown in Table: 2&3.

Table: 2 showing scoring pattern used for assessment

1) Severity of Pain		2) Tenderness		3) Swelling	
Score 3	Severe	Score 3	Severe	Score 3	Severely present
Score 2	Moderate	Score 2	Moderate	Score 2	Markedly present
Score 1	Mild	Score 1	Mild	Score 1	Slightly present
Score 0	Nil	Score 0	Nil	Score 0	Absent

satisfactorily. During this course of illness he was having Urinary tract infection once and went under synovial aspiration of right knee joint effusion in the year of 2012. Before starting Ayurvedic treatment, investigations in relevance to disease condition i.e. Rheumatoid Factor (Quantitative) test, CBC, Erythrocyte Sedimentation Rate (ESR) and 2D Echo were done. RA factor was negative and 2D Echo was normal, whereas rest of the hematological parameters were revealed within normal range.

Patient was advised to continue *Kaishora Guggulu* (250mg) 1tab twice a day for period of 6 months to check recurrence of any symptoms. Within this period, patient made several regular visits (once per 2 weeks) to OPD, and no any single episode of fever or any sign of joint inflammation was observed. No adverse effects observed during and after treatment including follow up period of 6 months.

4) Grip Strength		5) Functional Score	
Score 3	Poor (below 38 mmHg)	Score 3	Unable to do
Score 2	Moderate (40-140 mmHg)	Score 2	With the help of other person or device
Score 1	Mild (142-280 mmHg)	Score 1	Able to do so with difficulty
Score 0	Normal (above 282 mmHg)	Score 0	Able to do so without difficulty

Table: 3 showing result of assessment before and after treatment

Parameters	BT (day1st )	AT (day42th )
1. Severity of Pain	2	0
2. Tenderness	3	0
3. Swelling	2	0
4. Grip Strength (Lt & Rt hand)	L-3 R-2	L-2 R-2
5. Functional Score	3	0
Total score (maximum 18, minimum-0)	15	4

## DISCUSSION

Symptomatology of *Aamavata* includes general symptoms like *Angamarda* (bodyache), *Aruchi* (anorexia), *Aaalasya* (malaise), *Gaurava* (feeling of heaviness), *Jwara* (fever), *Apaaka* (indigestion) and *Shunataanganam* (swelling / inflammation of body parts). In chronic condition; a stage of exacerbation, painful joint is main symptom along with other constitutional symptoms and lastly *Jaadyata* (stiffness, loss of movement) or *Akarmanyataa* (inability of joint to perform its normal function) develops in patient<sup>xv</sup>.

Here vitiated *Vata* associate with *Ama* (undigested toxic substance) and produce many constitutional and specific symptoms affecting the bony joints by invading multiple body system. The line of treatment can be summarized under two main captions i.e. to bring *Agni* (digestive power) to normal state to digest *Ama* and eliminate vitiated *Vata* and *Ama*. Keeping this in view *Swadishta Virechana churna* was advised to clear *Malaavarodha* (constipation) and *Deepan - Paachan* (enhance proper digestion) in first regimen. *Kaishora Guggulu* was given to reduce jointpain. Ingredient of *Kai-*

*shora Guggulu* are having properties like antioxidant, hepato-protective, immunomodulatory, digestive stimulant, carminative and analgesic which can help to heal the inflammation and to restore joint health<sup>xvi</sup>.

During the second regimen *Chitrakaadi Vati* was given to improve digestive power and avoid indigestion during course of *Panchakarma* procedure. *Rasnasaptak Kwatha* was given for pain relief. It is indicated in *Janghashoola* (hip pain), *Urushoola* (thigh pain), *Prush-tashoola* (backpain), *Trikashoola* (Lower back pain) and *Parshwashoola* (pain on the sides of abdomen-flanks). *Panchakarma (Vaitarana Basti)* treatment was given following standard procedure<sup>xvii</sup>.

Effective management of JIA needs a multidisciplinary team approach for preventing the joint destruction and promote growth and development, which is the aim of good management. The main stay of recent treatment protocol is oral medication along with physiotherapy. It gives symptomatic relief to patient but not marked or better improvement in disease condition. Medications used are mainly non-steroidal anti-inflammatory drugs and Methotrexate - a type of drug known as a

disease-modifying anti-rheumatic drug (DMARD)<sup>xviii</sup>. Associated side-effects of Methotrexate therapy include major effects such as hepatic, pulmonary, renal and bone marrow abnormalities; and minor effects such as stomatitis, malaise, nausea, diarrhea, headache and mild alopecia<sup>xix</sup>.

### CONCLUSION:

The purpose of presenting this case is to exhibit the effect of Ayurvedic treat-

### Tables:

Table: 4 showing contents of *Swadishta Virechana Churna*

Sr. No	Ingredient Name	Botanical name	Part used
1	<i>Swarnapatri</i>	<i>Cassia angustifolia</i>	Leaves
2	<i>Madhuka</i>	<i>Glycerrhiza glabra</i>	Stem
3	<i>Ikshusarkara</i>	<i>Saccharam officinarum</i>	Stem

Table: 5 showing contents of *Kaishora Guggulu*

Sr. No	Ingredient Name	Botanical name	Part used
1	<i>Haritaki</i>	<i>Terminalia chebula</i>	Fruits
2	<i>Bibhitaki</i>	<i>Terminalia belerica</i>	Fruits
3	<i>Amalaki</i>	<i>Emblica officinalis</i>	Fruits
4	<i>Amruta</i>	<i>Tinospora cordifolia</i>	Stem
5	<i>Guggulu</i>	<i>Commiphora mukul</i>	Resin from Stems
6	<i>Sunthi</i>	<i>Zingiber officinale</i>	Rhizome
7	<i>Maricha</i>	<i>Piper nigrum</i>	Seed
8	<i>Pippali</i>	<i>Piper longum</i>	Fruit, Stem & Root
9	<i>Vidanga</i>	<i>Embelia ribes</i>	Fruit
10	<i>Danti</i>	<i>Baliospermum montanum</i>	Leaves, Root & Stem
11	<i>Trivrit</i>	<i>Operculina turpethum</i>	Root
12	<i>Goghrita</i>	Clarified butter (Ghee made from Cow's milk)	whole

Table: 6 showing contents of *Chitrakadi Vati*

Sr. No	Ingredient Name	Botanical name	Part used
1	<i>Chitraka</i>	<i>Plumbago zeylanica</i>	Root
2	<i>Pippali Mool</i>	<i>Piper longum</i>	Root
3	<i>Sarjikakshar</i>	<i>Sodium carbonate</i>	whole
4	<i>Yavakshar</i>	<i>Potassium carbonate</i>	whole
5	<i>Pancha lavana</i>	<i>Five salts</i>	whole
6	<i>Sunthi</i>	<i>Zingiber officinale</i>	Root
7	<i>Maricha</i>	<i>Piper nigrum</i>	Fruit

8	<i>Pippali</i>	<i>Piper longum</i>	Fruit
9	<i>Hingu</i>	<i>Ferula asfoetida</i>	Resin from Stems
10	<i>Ajamoda</i>	<i>Apium graveolens</i>	Fruit
11	<i>Chavya</i>	<i>Piper chaba</i>	Fruit

Table: 7 showing contents of *Raasnasaptak Kwatha*

Sr. No	Ingredient Name	Botanical name	Part used
1	<i>Rasna</i>	<i>Pluchea lanceolata</i>	Root
2	<i>Erandamoola</i>	<i>Ricinus cumminis</i>	Root
3	<i>Gokshur</i>	<i>Tribulus terrestris</i>	Fruit
4	<i>Devdaroo</i>	<i>Cedrus deodar</i>	Stems
5	<i>Punarnava</i>	<i>Boerhaavia diffusa</i>	Whole plant
6	<i>Amruta</i>	<i>Tinospora cordifolia</i>	Stems
7	<i>Aragwadha</i>	<i>Cassia fistula</i>	Root

Table: 8 showing contents of *Vaitarana Basti*

Sr. No	Ingredient Name	Botanical name	Quantity <sup>xx</sup>
1	<i>Guda</i>	<i>Jaggery</i>	50gm
2	<i>Lavana (Saindhav)</i>	Rock salt	5gm
3	<i>Sneha (Tila tailam)</i>	Sesame oil	50ml
4	<i>Amlika kalka</i>	<i>Zinzibar Officianlis</i>	50ml
5	<i>Gomutram</i>	Cow's urine	30ml

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