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AYURVEDIC MANAGEMENT OF JUVENILE RHEUMATOID ARTHRITIS (JRA) – A CASE STUDY

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ABSTRACT

The journey of children from total dependence to full independence, but chronic diseases such as arthritis makes dependence and burden to the family, juvenile rheumatoid arthritis (JRA) is one among them. Which is characterised by synovitis of peripheral joints manifesting in soft tissue persists at least 6 weeks with the onset before 16 years of age. And causes progressive physical disability and psychological trauma as well. With a clinical features like morning stiffness, easy fatigability, Joint pain, swelling, tenderness, warm, resists full range of movement, poor sleep quality. Present case is 6 year old girl suffering with multiple joints of both upper and lower limb pain, swelling, tenderness, warmth since 2 years, with difficulty in walking, constipation(*vibhanda*), indigestion(*avipaka*), disturbed sleep (*nidra hani*). With these symptoms diagnosed it as a disease *amavata*. And she received both *shamana* followed by *shodhana chikitsa*. After the treatment follow up there is increased quality of life in view of reduced pain, swelling, tenderness, warmth, improved *agnibala*, sleep quality, relived from constipation, increased quality of life, most important one is free from steroids. Even though

multidisciplinary team approach in modern medication, *Ayurvedic* treatment principles plays a better results in the present case.

Keywords: Juvenile rheumatoid arthritis, JRA, JIA *Amavata* in children, Ayurvedic management, Amapachana, internal medication, *Vibhanda*,

INTRODUCTION:

Juvenile rheumatoid arthritis (JRA) is a autoimmune, chronic multisystem disease, characterised by swelling and effusion persisting in soft tissue resulting in progressive erosion of articular cartilage [1]. And affecting 1 in 1000 live births [2], females are more prone than males. In oligoarticular male:female ratio [3] is 1:3 and in poly articular 1:5. Involvement of causes are unknown but genetic, non-genetic or external environmental factors, immunologic susceptibility plays an important role in pathogenesis of disease, these immunologic abnormalities causes inflammatory synovitis, characterized by villous hypertrophy and hyperplasia with hyperemia and edema of the synovial tissue. And classification based on international league against rheumatism (ILAR) [4] that involves age of disease onset, number of joints involved in arthritis (>5 – polyarthritis, 4 or <4 oligoarthritis), duration of disease and are systemic onset, polyarthritis, oligoarthritis, psoriatic, enthesitis. Which includes elevated total and differential count, ESR, CRP, positive RA factor, elevated immunoglobulins and goal of treatment [5, 6] are to achieve disease remission, prevent joint damage and foster

normal growth and development. And medical management includes NSAID's, oral or intravenous or intraarticular injection of glucocorticoids, which is a bridge therapy and DMARD's and other general measures includes physiotherapy, occupational therapy. Based on clinical features this condition is compared with *amavata* [7], derived from the words *ama* and *vata* and was explained first by *Acharya Madhava* in his book *rugvinischyaya*. Which is due to improper *paripaka* of *rasadhatu*, formation of *ama* takes place, with the influence of *vata*, *ama* localized in *kati*, *trik*, *sandhis* [8] and produces pain, swelling, stiffness, heaviness all over body, fever, anorexia, thirst, indigestion, disturbed sleep. And according to particular clinical features can be classified as 4 types [9], those are *vataja amavata* includes severe pain, *pittaja amavata* includes burning sensation, *kaphaja amavata* includes heaviness and itching all over body, *sannipataja amavata* includes mixed symptoms of involved doshas. And *pravruddha amavata* [10] includes features like scorpion sting like pain in affected joints, stiffness and heaviness in joints, poor appetite, burning sensation, polyuria, vomiting, constipation,

disturbed sleep. Treatment principles [11, 12] includes *laghu ahara sevana*, *ruksha swedana*, *tikta*, *katu rasa pradhana ahara sevana*, *virechana* and *basti karma*. In present case followed same line of management.

Patient Information:

A 6year old girl came to the out-patient department with her mother and she was complaining that her daughter had developed pain, swelling, pain on touch, and local raise of temperature in small joints followed by large joints of both upper and lower limbs since 2 year, with difficulty in walking, reduced appetite (*arochaka*), indigestion (*avipaka*), constipation (*vibhanda*), disturbed sleep (*nidrahani*) since 6 months. With the previous history of, she was normal up to the age of 4 years, and attained all developmental milestones according to her chronological age. And then gradually developed mild pain & swelling in minimal joints, associated with fever, which was persisting up to 6 months. she used to take prednisolone 10 mg tablet on consultation, half tablet twice a day for one month followed by half tablet once a day for 15 days. After that parents were continued the same treatment for nearly one and half year, without further consultation, due to covid pandemic and symptoms got worsened compared to previous one. With a ray of hope on *Ayurveda* management they came for further management.

Physical examination [13]:

Pain, swelling & tenderness, stiffness in multiple joints

Limited range of movements, marked weight loss

No H/O lymphadenopathy, hepatosplenomegaly, erythematous rashes, and rheumatoid nodules.

MUSCULOSKELETAL

EXAMINATION:

- a) Inspection: Visible gross abnormality of joints, swelling of joints.
- b) Palpation: On light pressure pain, tenderness, inflammatory findings includes- synovial thickening, mild crepitations.
- c) Range of motion: reduced active range of motion.
- d) Co-ordination: intact

Diagnosis:

According to clinical presentation and physical examination can be differentiated with *amavata*, *vatarakta* and *sandhighata vata*, in absence of relation with involvement of *rakta*, excluded *vatarakta*. In absence of relation with *vatapurnadriti sparsha* excluded *sandhigata vata*. Hence in view of of symptoms was diagnosed it as *amavata*

Treatment:

After considering the *samprapti* and *amshamsha kalpana* of *amavata*, management principle was planned.

Table 1: First 15 days of treatment plan:

S. No.	Aushada	Matra	Anupana	Bheshaja kala	Kala
1	Vaishwanara churna	1/2 tsp BD	Sukoshna jala	Before food	15 days
2	Amrutarishta	5 ml BD	Normal water	After food	15 days
3	Gandharva hastadi eranda taila	5ml OD daily for 1 week	Warm milk	Morning empty stomach	7 days
4	Rasnasaptaka Kashaya	5 ml BD	Normal water	After food	15 days
5	Valuka sweda	2 times a day			15 days

Table 2: 1st Follow up

S. No.	Aushadha	Matra	Anupana	Bheshaja kala	Kala
1	Amavatari rasa +Sameera pannaga rasa	20 tab + 2.5 gm 1 ratti OD	Madhu	After food	15 days
2	Gandharva hastadi eranda taila	Followed by twice in a week for 2 weeks	Warm water	Morning empty stomach	15 days
3	Valuka sweda	2 times a day			15 days

2nd follow up:

- Dashanga lepa : Over all joints - for 7 days
- Triphala Kashaya parisheka all over body – 7 days
- **Followed by continuing**
 - a) Valuka sweda twice a day -3weeks
 - b) Gandharva hasta eranda taila

once a week – 3 weeks

3rd follow up:

- Gentle massage with Brihat saindavadi taila + maha vishagarbha taila for 7 days.
- Mrudu Nadi sweda for 7 days.
- Kashaya vasti for 7 days.
(Kashaya: dashamula + erandamula Kashaya with gomutra)
(Taila: sahacharadi taila)
- **Followed by:**
- Kokilakshadi Kashaya: 5ml BD with water for 15 days

Treatment outcome:

After first 15 days of oral medication and mridu virechana with gandharvahasta

eranda taila with milk, ruksha valuka swedana, mild relieved from pain, tenderness, swelling and local raise of temperature in joints, and improved jataragni bala and requirement of steroid therapy slightly reduced. So that continuing mridu virechana twice a week with warm water and ruksha valuka sweda added combination of amavatari rasa and sameera pannaga rasa 1 ratti for next 15 days, as milk is contraindicated [14] while taking amavatari rasa used warm water with eranda taila, along with this tapered off steroid therapy. After 1st follow up bowel movement was improved, improved sleep pattern in a toddler but moderate pain, swelling, tenderness persisting so planned for lepana and parisheka for 7 days and followed by continuing a) valuka sweda twice a day- 3weeks, b) Gandharva hasta eranda taila once a week – 3 weeks. After the 3rd follow up, relieved pain, tenderness, swelling and temperature in all the joints. Relieved from constipation, improved

agnibala. After subsiding acute symptoms planned for *basti* as *basti* is *ardha chikista* in *vatavyadi*, *kashaya vasti* mixed with *gomutra* for 7 days. As *kshara basti* will not tolerated by gut mucosa of toddler age. And overall outcome is relieved pain, tenderness, swelling and temperature in all the joints. Improved sleep pattern and *agnibala*,

relieved constipation. Increased range of movements in affected joints especially knee, elbow, wrist joints, attained normal walking style, marked weight gain and child was on steroid tb prednisolone 10 mg OD. was tapered off within a month & child is exclusively on *Ayurveda* medications and doing good.

Table 3: Time line

Time line	Joint pain	Joint swelling	Appetite	Constipation	Steroid use
1)Base line	Severe	Severe	Poor	present	10 mg half tablet OD
2) 15 days after treatment	Mild reduced	Mild reduced	Improved	Improved bowel movements	Alternate day
3)30 days after treatment	Moderate reduced	Moderate reduced	Good	Improved bowel movements	Once in week
4)51 days after treatment	relieved	Relieved	Good	relieved	stopped
5) 70 days after treatment	relieved	Relieved	Appropriate	relieved	Not needed
6) 100 days after treatment	absent	Absent	Appropriate	Regular bowel movements	Not needed

DISCUSSION:

As *amavata* is due to involvement of *vata pradhana tridhosha*, *ama* and based on clinical presentation, present case was *sannipataja* type, so planned treatment accordingly. *Vaishwanara churna* is having *lekhana* and *rukshana* drugs and does *vatanulomana*, *ama pachana*, *agnideepana*, relieved constipation. And *amrutarishta* is best *jwaragna* so reduces fever and local raise of temperature. And in *gandharva hastadi eranda taila*: *erand* has *katu*, *ushna*, *sukshma guna*, best for *vatahara* [15], *shulahara* and acts as *mridu virechaka* does *koshta shuddhi*. Is a drug of choice in *amavata* [16]. As *rasna* is best *vatahara* [17] and *rasna saptaka kashya* reduces pain in *jangha*, *uru*, *trik*, *parshwa*, *sandhi* and

pacifies *vata* and *kapha dosha*. And *Ruksha valuka sweda* reduces *vedana* and *shotha* and *picchila guna* of *ama*. And *amavatari rasa* is indicated in *amavata* pacifies *shotha* and *shula*. *Dashanga lepa* has all *tikta rasa pradhana* drugs which reduces *kapha*, *jadyata* in *sandhi* and has best *shulahara* property. And *triphala* has *tridoshagna* and *ropana* property so dose *agnideepana*, and *amapachana* and promotes circulation as doing *parisheka*. And external application of *brihath saindhavadi taila* [18] having *ruksha* and *lekhana guna* reduces *ama*, *shula* and *shotha*. *Bhaspasweda* reduces stiffness [19]. And *basti* is the *ardha chikitsa* in *vatavyadi* which pacifies *vata*, *kapha* and using of *gomutra* reduces *ama*, *shotha* due to its *lekhana* and *ruksha guna*. *Kokilaksha*

Kashaya pacifies *vata* and *pitta*, and reduces *shotha* and *shula* does *deepana*, *pachana*, is indicated in *Amavata*. some oral medication and *panchakarma* procedures were necessary to manage this type of chronic condition so that toddler achieved her normal quality of life and becomes dependent physically and from steroids as well.

CONCLUSION:

Amavata cases are increasing in children also due to consumption of incompatible food, lack of physical activity and due to stress and lifestyle. Following the basic principles of *Ayurveda* increases the quality of life, growth and development of child, reduces the prevalence rate, and reoccurrence rate as well.

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