

SYSTEMATIC APPLICATION OF AYURVEDIC PRINCIPLES FOR THE MANAGEMENT OF HAEMARTHROPATHY- A CASE REPORT

Ahmed Nasreen^{1*} and Kajaria Divya²

¹P.G. Scholar, Department of Kayachikitsa.

²Assistant Professor, Department of Kayachikitsa All India Institute of Ayurveda,
Gautampuri Sarita Vihar, New Delhi.

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***Corresponding Author**

Dr. Ahmed Nasreen

P.G. Scholar, Department of
Kayachikitsa.

ABSTRACT

Haemarthropathy occurs when there is bleeding in the joint spaces. It mainly occurs in the patient suffering from haemophilic disorders. The clotting factor deficiency is responsible for the severity of the disease. It occurs following the injury over the joint of haemophilic patient. Joints involved mainly are knee joint, ankle joint, elbow joint, shoulder joint. Signs and symptoms are joint pain, swelling and unable to move the arms or difficulty in flexion or extension of the arms. Treatment mainly involved painkillers, steroids, infusion of clotting factors in

case of haemophilic patients. It can be correlated with *Vatarakta* in Ayurveda on the basis of signs and symptoms. In Ayurveda treatment for *vatarakta* is explained in detail, *basti* is considered as the best treatment in case of *vatarakta* as mentioned by Acharya Charak. A case study was done on a known case of haemophilic disorder suffering from arthropathy. Treatment mainly done on the basis of the principles mentioned in Ayurveda for *Vatarakta*. *Basti* was given along with oral medications for 15 days and results were analysed. There was noticeable reduction in the swelling over the bilateral knee joints, pain subsides and movements of the arms increases and overall Quality of life was improved.

KEYWORDS: Haemarthropathy, *Vatarakta*, *Basti*, Ayurveda, Haemophilic Disorder.

INTRODUCTION

Haemarthropathy is defined as bleeding in the joint spaces. It is mainly associated with the haemophilia disorders (Haemophilia A and B). The frequency and severity of haemarthropathy are related to the degree of clotting factor deficiency. It usually follows injury or occurs in patients with predisposition to haemorrhage such as those being treated

with warfarin. It is not common in other disorder of coagulation such as von willbrand disease.

Haemarthropathy occurs after 1 year of age, when a child begins to walk and run, In order of frequency the joint most commonly affected are the knees, ankles, elbows, shoulders, hips. Small joints of hands and feet are occasionally involved. In the initial stage of arthropathy, haemarthrosis produces a warm, tensely swollen and painful joint. The patient holds the affected joint in flexion and guards against any movement. The incidence of haemarthropathy is 1 in 10000 males born, inheritance mainly X linked recessive, 25-30 percent new mutation rate. The involved joints remain swollen and flexion deformity develop, joint motion may be restricted and function severely limited. The hallmark of this disease is chronic synovitis and progressive articular destruction, synovial lining is heavily laden with haemosiderin which is an iron storage complex. In this disease the repeated haemarthrosis can leads to Chronic synovitis and hypertrophy, Accumulation of haemosiderin, Release of lysosomal enzymes (cathepsin D), Release of plasmin, Fibrosis of synovium, Cartilage destruction and Intra-articular clots organize to fibrous adhesions. Synovial changes leave synovium vulnerable to further damage and bleeds. Vascular pannus covers articular surface and further destroys it. Also subchondral haemorrhage with loss of cartilage support and hyperaemic stimulation of epiphysial growth. Enzymatic processes and intracellular iron deposits cause inflammatory response, which leads to continued breakdown of articular cartilage. Chondrocytes also exhibit iron deposition, which may cause necrosis. In this disease pathology in muscle leads to fibrosis, deformity, complications leads to compressive nerve palsy, cysts and pseudotumor. Treatment modality in allopathic medicine is mainly infusion of factor VIII, analgesics, synovectomy. In Ayurveda it can be correlated with Gambhir Vatarakta on the basis of similar symptoms and signs. Acharya charak has defined it as

गम्भीरे श्वयथुः स्तब्धः कठिनोऽन्तर्भ्रशार्तिमान् ।

श्यावस्ताम्रोऽथवा दाहतोदस्फुरणापाकवान् ||(Ch.Chi.29/21)

In this type of vatarakta there is stiffness along with rigid swelling and more pain inside the swelling, colour of the skin becomes black or brown, there is burning, pricking and tingling sensation in the joints and pruritis also developed.

The chikitsa sidhant which is mentioned and explained by Acharya charak in this disease is as

विरेच्यः स्नेहयित्वाऽऽदौ स्नेहयुक्तैर्विरेचनैः।

रुक्षैर्वा मृदुभिः शस्तमस्रद्बस्तिकर्म च ॥(Ch.Chi.29/41)

In the beginning of the disease snehan should be given and sneha yukta virechan after this basti karma is the best treatment for this disease.

There are various lepa are also mentioned in this disease by Acharya charak which can be applied locally and relieve the symptoms of the disease. Here is a case report of the above mentioned disease in which same treatment principles are used and applied as mentioned in the samhita.

Case Presentation: A 32 year married male patient came to *Kayachikitsa* OPD of All India Institute of Ayurveda(AIIA) with chief complaints of difficulty in walking, difficulty in bending the upper and lower arms since 6 months. History of present illness: According to the patient he was asymptomatic 6 months back, then he got injury on his right knee joint after which he developed swelling or infusion over the joint and over calf region also, he was then operated for this, after this there was restricted movement of the joints of both legs which follows with difficulty in walking and there was difficulty in bending of upper arms also, which persists. He took treatment from allopathic medicine but could not get relief so he came to AIIA for the needfull treatment. History of past illness: Patient was a known case of Haemophilia A since birth, for this he was taking allopathic treatment.

Examination

Table 1.

General Physical Examination	<i>Dashvida Pariksha</i>	Systemic Examination
<ul style="list-style-type: none"> • Appetite-average • Bowel-regular • Bladder- normal • Sleep- average • Blood Pressure:110/80 • Pulse: 78/min, regular • Temperature: normal • Height:1.54m • Weight:39 kg • BMI:16.4 kg/m² • Respiratory rate:24/min • Pallor: absent 	<ul style="list-style-type: none"> • <i>Prakriti: vatapittaj</i> • <i>Vikriti: vikriti visham samveta</i> • <i>Sara: avara</i> • <i>Samhanan: madhyam</i> • <i>Satmya: madhyam</i> • <i>Satva: madhyam</i> 	<ul style="list-style-type: none"> • Cardiovascular system: NAD • Respiratory system: chest bilateral clear, NAD • Gastrointestinal system: NAD • Locomotor system: restricted movement of both upper and lower arms, swelling over both the knee joints. • Nervous system: <ul style="list-style-type: none"> ➤ Higher function-normal ➤ Motor function- <ul style="list-style-type: none"> a. Nutrition- (upper limbs)decreased

<ul style="list-style-type: none"> • Lymphadenopathy: absent • Icterus: absent • Clubbing: absent • Pedal oedema: absent • Tongue: clean • Built: thin • Eye movement: normal 	<ul style="list-style-type: none"> • <i>Pramana: average</i> • <i>Ahar Shakti: madhyam</i> • <i>Vyayam Shakti: avara</i> • <i>Vaya: madhyam</i> 	<ul style="list-style-type: none"> (lower limbs)decreased b. Power-(upper limbs) 3/5 (lower limbs)3/5 c. Tone- (upper limbs)hypertonic hypertonic d. Coordination- (B/L) normal ➤ Cranial Nerves: intact ➤ Reflexes:normal
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Diagnosis: On the basis of complaints and examination of the patient diagnosis is done as Haemarthropathy and according to Ayurveda *Gambhir Vatarakta*.

Treatment Protocol: Treatment was planned according to the principles of Ayurveda which is described by Acharya charak in the context of the disease Vatarakta.

Oral medications along with *Panchkarma* therapy was given.

A. Oral medications

Table. 2.

S. No	Medication	Dose	Route	Frequency
1	<i>Kaishore guggulu</i>	2 tab	parental	BD
2	<i>Amalaki churna + guduchi churna</i>	2grams each	parental	BD
3	<i>Sarivadyasava</i>	20 ml with equal amount of water	parental	BD
4	M.liv syrup	15 ml	parental	BD
5	<i>Shatavari gulam</i>	2.5 grams	parental	BD
6	<i>Madhuyashti and munakka ksheerpaak</i>	50ml	parental	Once in a day
7	<i>Pinda tail</i>	For L/A	L/A	Two times a day
8	<i>Tagaradi lepa</i>	For L/A	L/A	Once in a day

B. Panchkarma Procedures

- *Sarvanga abhyanga* with *Balashwagandhadi tail + Sahacaradi tail* and *sarvanga swedana* with *Dashmool kwatha* for 15 days
- *Yapana Basti* (amount:150ml) Duration:15 days

Contents

- ✓ *Kwatha dravya- ksheer*: 100 ml, *madhuyashti churna*: 10 grams
- ✓ *Kalka dravya- madanphala churna*: 4grams, *shatpushpa churna*: 4 grams,
Pippali churna: 2 grams
- ✓ *Sneha- mahatiktak ghrita*: 20 ml
- ✓ *Madhu*: 10 ml

RESULTS

The symptoms are slightly reduced, movement of the joints got improved not fully but better than before. Pain and swelling over joints reduced.

**BT****AT**

In the above picture it can be seen that there is reduced swelling over the knee joint after the treatment.

The Blood investigation before and after treatment are as

Table 3:

S. No	Investigation	BT	AT
1	Hb	12.5 g/dl	12.5 g/dl
2	TRBC	4.59 10^3 /cumm	4.54 10^3 /cumm
3	Platelet	177 10^3 /cumm	259 10^3 /cumm
4	MCV	86.4 fl	85.6 fl
5	MCH	27.3 pgs	27.5 pgs
6	MCHC	31.6 g/dl	32.2 g/dl
7	TLC	6.0 10^3 /cumm	8.1 10^3 /cumm
8	ESR	18 mm/hr	17 mm/hr
9	BT	2 minute	2 minute 30 seconds
10	CT	3 minute 30 seconds	3 minute
11	Peripheral smear examination	Normal, mild anisocytosis	Normal, RBC slightly minocytic

DISCUSSION

Haemarthropathy is described as the arthropathies occurring due to the deficiency or factors related with the bleeding disorders, it occurs mostly in males and occurs before the age of 15 years. On the basis of the clinical features and history of the patient diagnosis was made as haemarthropathy and according to Ayurveda Gambhir Vatarakta and the treatment was done according to principles mentioned in the Ayurveda classics. Acharya charak has mentioned

basti karma as the best treatment in case of Vatarakta chikitsa, so here in this case also basti was given according to the patient's condition. In modern medicine the treatment given was according to the stages and chronicity of the disease, because the main cause of this disease is the absence of clotting factor in the body, the clotting factor are given to control the bleeding, joint functions are maintained to avoid the occurrence of arthropathy. In the acute stage clotting factors are given with some exercise. In subacute stage analgesics along with steroid therapy are prescribed, in chronic stage as the condition become worse surgery is the option whether it is synovectomy, osteotomy or complete knee replacement, after all this the patient did not got such relief. In Ayurveda classics there are various principles for the treatment for Vatarakta, internal medicines along with panchkarma procedures and various lepa for local application were also mentioned. In this case oral medications used are mentioned under the treatment of vatarakta, kaishore guggulu which is indicated by Acharya chakradutt in the treatment of vatarakta is mentioned, guduchi was given as it is mentioned by Acharya charak as a single drug for the treatment of vatarakta, amla and guduchi was given together as both act as tridosha shamak together and guduchi has its effects on rakta dosha. Shatavari gulam was given for the rasayan purpose also as it is a chronic disease so rasayan is must to be given, sarivadyasav was given for its raktaprasadan properties as it acts as blood purifier. Syrup M. liv was given as a liver tonic, to enhance and maintain the metabolism of the body. Madhuyashti and munakka was given as ksheerpak and it is also mentioned by Acharya charak in the treatment of this disease, it also helps in vatanulomana. Tagaradi lepa was given for local application as it is also mentioned by Acharya charak in the context of this disease, pinda tail is also mentioned in the vatarakta disease by Acharya charak, its contents are mainly four drugs that is maduuchhist(bee wax), manjishtha, sarjrasa, sariva which acts on rakta dosha and helps relieving the pain in this disease. Panchkarma treatment given is Madhuyashtiadi ksheer yapana basti along with sarvanga abhyanga and swedana. Yapana basti are nirapada basti which causes no harm and can be given regularly. In this case basti was given for 15 days, contents of the basti are according to the condition of the patient. After giving the whole treatment, day by day the condition of the patient start improving slightly not very much. The quality of life of the patient improved, he was able to move his joint to some extent but not fully, swelling over the joint got reduced after the course of the treatment.

CONCLUSION

The case mentioned above was diagnosed as Gambhir Vatarakta in terms of Ayurveda and haemarthropathy according to modern medicine and the treatment given was according to the ayurvedic principles only, condition of the patient got improved, pain and swelling got reduced, but there was no such drastic changes occurs. Much more researches and work could be done in these type of diseases in Ayurveda, these are the few principles which were applied in this case, there are various treatment principles mentioned in Ayurveda which can be used further.

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