

AN AYURVEDIC APPROACH TO A CASE OF PERTHES DISEASE

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ABSTRACT

Legg Calvé Perthes Disease is a childhood disorder where there is growth disturbance overlapped with temporary ischemia of upper end of femur. Children may present with episodic pain over affected hip radiating to knee or thigh, which is often overlooked for growing pains. The disease can produce pain over the hip region affecting the range of movements resulting in limping and stiffness of the joint with a risk of early onset of arthritis in adulthood. We present a case report of a 59-year-old woman with a history of Perthes disease, treated successfully with the principles of Ayurveda. We also present an overview of the disease, its correlation and treatment methodology as per Ayurvedic classics.

Keywords: Legg Calvé Perthes Disease, Coxa plana, Pseudocoxalgia, *Sandhigata vata*, *Mamsa kshaya*

INTRODUCTION

First described in 1897 by Dr. Karel Maydl, an Austrian surgeon, Perthes disease was described associated with Tuberculosis. Later the disease was renamed in memory of three surgeons namely, Dr. Arthur Legg, Dr. Jacques Calvé and Dr. Georg Perthes who described the disease as Osteochondritis of the epiphysis of the Femoral head and disproved the existing theory of its association with Tuberculosis and hence the name Legg Calvé Perthes Disease. It is a chronic condition of the hip which occurs in children with growth disturbance associated with temporary ischemia of upper end of femur, leading to a cycle of avascular necrosis followed by deformation and subsequent revascularization¹. The disease can produce pain over the hip region affecting the range of movements resulting in limping

and stiffness of the joint with a risk of early onset of arthritis in adulthood².

Legg Calvé Perthes Disease also named as Coxa plana, Pseudocoxalgia traces its etiology as idiopathic. Being common in the age group of 3-12years, affects boys five times more than girls. Incidence was more common in children of low birth weight and constituted delay in growth. Due to interruption in blood supply the femoral head becomes partially or wholly avascular and deformed. Pathologically the disease progresses in three distinct stages namely, the stage of synovitis, the stage of trabecular necrosis and the stage of healing³. Owing to the impaired blood supply to the head of femur, the bone cells proceed to necrosis associated with inflammation of surrounding tissues. In due course of

time, the body removes the dead bone cells and replaces it with newer cells which are relatively weak or spongy. The stage of healing is witnessed by the reconstruction of the joint by the development of stronger bone cells taking shape into the head of femur. There may be some residual deformity due to growth arrest and flattening of femoral head that can predispose to early degenerative changes in adulthood.

Case Report

A 59-year-old woman, occupational therapist by profession, weighing 60kgs with a height of 168cms approached us with painful and stiff right hip. She claimed to have excruciating pain during night hours and felt instability of right hip joint while walking bare foot, which eventually resulted in limping. She was unable to lie on supine position and to extend the right lower limb completely. She revealed the history of being diagnosed with Legg Calvé Perthes Disease at the

age of 18. She had episodes of pain over the right hip during her childhood and were ignored for growing pains. At the age of 18 she started limping and approached multiple orthopedic consultants and eventually after 7 years she was diagnosed with Perthes Disease by Dr. Catterall and he performed femoral osteotomy on her at the age of 25.

On examination it was found that right femur was 2cms shorter than left. Trendelenburg test showed strongly positive in right lower limb. Muscles of right anterior and posterior compartments of the thigh showed wasting. Peripheral pulsations were felt and there were no neurological deficits.

Pain was rated as grade 4 (7-10) of Numerical rating scale, quoted as severe pain, disabling, unable to perform activities of daily living.

The range of movements assessed are quoted in table no.1

Table 1”

Movement	Right hip	Left hip
Flexion	15 °-90 °	0 °-130 °
Abduction	0 °	40 °
Adduction	20 °	30 °
Internal rotation	5 °	10 °
External rotation	0 °	30 °

As she narrated the history, she intimated us that the only option all the consultants had put forth as a suggestion was to undergo a hip replacement surgery for which she wasn't willing.

She had hopes with Ayurvedic system of medicine, hence approached us for further management. We considered the whole scenario and assessed that the main *Dhatu* involved is *Asthi*, which has *Ashraya-ashrayi sambandha* with *Vata dosha*⁴. By analyzing the clinical features, swelling around the hip joint (*Sopha*), pain (*Vedana*) and stiffness during movements (*Prasarana* and *Akunchana*) it was evident that the condition was suggestive of *Vata dosha prakopa* in *Sandhi* or *Sandhi-gata vata lakshanas*⁵. She also presented with *Mamsa* and *Medo dhatu kshaya lakshana* with evident muscular wasting over right thigh and sacral region.

Since the condition can be considered as a disorder of *Asthi dhatu*, the literatures throw light into the usage of *Panchakarmas*, *Basti* with milk or ghee of predominantly *Tikta rasa dravyas*⁶.

Investigations

Radiographs revealed larger femoral head in the right consistent with Perthes Disease and previous Sub trochanteric femoral osteotomy. Also denotes marked narrowing of the superior joint space and uncovering and flattening of right femoral head.

Treatments rendered

- *Udwarthana* with *Kolakulathadi choorna* – 3 days
- *Abhyanga* with *Mahamashadi taila* – 3 days
- *Patra pinda sweda* – 3days
- *Taila seka* with *Dhanwanthara taila* and *Mahamashadi taila* – 7 days
- *Shashtika shali pinda sweda* – 7 days

- *Mamsa pinda sweda* – 7days
- *Anuvasana basti* with *Guggulutiktaka ghrita* 80ml – 30 days

Oral medication

- *Guggulutiktaka kashaya* – 15ml with 60ml of luke-warm water twice daily before food
- *Sahacharadi kashaya* – 15ml with 60ml of luke-warm water twice daily before food
- *Cap Gandha taila* – 2-0-2 after food
- *Tab Laksha guggulu* – 1-1-1 after food
- *Guggulutiktaka ghrita* - 1teaspoon with milk twice daily before food
- *Ajamamsa rasayana* – 1tablespoon once daily with milk after food (on discharge)

The patient was also advised protein rich diet along with *Aja mamsa rasa* for 30 days during treatment.

The rationality of starting with *Udwarthana* was to remove the *avarana* caused by *Kapha dosha* due to the chronicity of the disease. It was followed by *Abhyanga* with *Mahamashadi taila* as a beginning to *snehana chikitsa*, followed by *Patra pinda sweda* which helped to relieve the *sopha* and *vedana* in the joints. Later on *Brimhana chikitsa* was adopted through *Taila seka*, *Shashtika Shali pinda sweda* and *Mamsa pinda sweda* to strengthen the muscles and ligaments around the joint. Also, *snehana* therapy was adopted through *pana* (internal administration) and *Anuvasana Basti* with *Tikta rasa pradhana ghrita* which is mentioned in *Asthipradoshaja vikara chikitsa*. *Tikta rasa pradhana* medications were administered internally, namely *Guggulutiktaka kashaya* and *Sahacharadi kashaya*. With a view of providing more strength to the *Asthi dhatu*, *Cap. Gandha taila* and *Tab Laksha Guggulu* were administered. For the overall nourishment of the patient *Ajamamsa rasayana* was administered with milk twice daily.

Results: There was marked improvement about pain and stiffness of right hip joint. The degree of pain descended from grade 4 to grade 2 (mild pain, interfering little with activities of daily living). Restriction of movements of the joint improved significantly. After the 12th day of treatment she could comfortably lie down on supine posture and extend her right lower limb

completely. The patient was able to walk bare foot on sand with negligible pain after the 23rd day. There was overall improvement of her health and strength of her right thigh muscles.

DISCUSSION

Legg Calvé Perthes Disease is a childhood disorder where there is growth disturbance overlapped with temporary ischemia of upper end of femur. Children may present with episodic pain over affected hip radiating to knee or thigh, which is often overlooked for growing pains. The condition seldom gets noticed until the child expresses acute pain, severe muscle spasms or limping. The contemporary science has described the treatment under three headings, to relieve the pain, protect the shape of head of femur and to restore the movement. Non-surgical management includes careful observation, anti-inflammatory drugs, limiting the activities, physiotherapy and usage of casts or braces to keep the head of femur with the cavity to prevent its flattening. Surgical intervention includes Osteotomy to align and reposition the head of femur within acetabulum by means of fixation and Tenotomy to release the taut adductor longus to facilitate more movements.

Ayurveda recognizes the condition as *Sandhigata Vata*. The main *dhatu*s involved in the pathogenesis are *Asthi*, *Mamsa* and *Medas*. Since *Asthi dhatu* and *Vata dosha* holds *Ashraya Ashrayi sambandha*, as there is depletion of *Asthi dhatu*, there will be *vridhhi* of *Vata dosha*, resulting in *Vata vyadhi*. Diseases of *Asthivaha srotas* are treated with *Panchakarma* and *Basti karma*. As per the reference of classics if the condition is associated with *Vata vridhhi*, good *rogi bala* and *agni* and if the patient is *vyayama nitya* and *roukshya* then *anuvasana basti* can be repeated for any number of days required. The patient of this case falls into this category and hence the *basti* was carried out for 30days for maximum benefit. *Basti* is also regarded as the main treatment for pacifying *Vata dosha*. The oral medications prescribed were also aimed at the increased *vata dosha* and to improve the strength of the muscles. On discharge the patient was asked to continue the same medication for three months with an addition of a *rasayana* in order to make use of the *Brimhana* effect to nourish

the *Asthi dhatu* and there by pacifying *Vata dosha*. The patient was also advised protein rich diet with *mamsa rasa* for the correction of muscle wasting over the right thigh and sacral region.

In this case the Ayurvedic treatment has aided the patient to avoid hip replacement surgery which was repeatedly suggested irrespective of the consultants. The patient is under regular checkups and medication and there is no further deterioration of the condition.

CONCLUSION

Sandhigata vata associated with *Mamsadhatu kshaya* was considered after evaluating the patient's symptoms of pre diagnosed illness. Legg Calvé Perthes Disease is a condition which can be treated surgically or conservatively. Here the patient was initially treated surgically but has recurred with the symptoms during adulthood. Treatments were administered for a period of 30days with prescribed diet and activities. Ayurvedic line of management yielded marked results in reducing the pain, improving the gait and restoring the movements. The patient was also advised to continue the medication for a period of 3months and to repeat the external therapies after a year for enhanced results. Above all, precise and timely diagnosis along with accurate application of principles of Ayurveda has aided for the optimal result in the case presented.

REFERENCES

1. Ebnezar, J. Non traumatic Orthopaedic disorders. In: Vijitendar, P (ed.) Textbook of Orthopaedics. New Delhi: Jaypee Brothers Medical Publishers (P) Ltd; 2010. p. 410-415.
2. Hamblen David, L. The Hip region. In: Hamish simpson, R.W (ed.) Adam's Outline of Orthopaedics. Toronto: Churchill Livingstone Elsevier; 2010. p. 366-369.
3. Maheshwari, J. Miscellaneous Affections of the Bone. In: Maheshwari, J (ed.) Essential Orthopaedics. New Delhi: J Maheshwari, Flat No 541, East of Kailash; 2011. p. 269-270.
4. Acharya Vagbhata. Doshadi Vijnaniya Adhyaya. In: Srikantha murthy, K.R (ed.) Ashtanga Hridayam. Varanasi: Choukhamba Krishnadas Academy; 2012. p. 160.
5. Agnivesa. Vatavyadhi Chikitsitam. In: Dridabala (ed.) Charaka Samhita: Chaukhambha Orientalia; 2011. p. 618.
6. Agnivesa. Vividhaasita pitiyam adhyayam. In: Dridabala (ed.) Charaka Samhita. Varanasi: Chaukhambha Orientalia; 2011. p. 180.

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