



A CASE STUDY - EFFICACY OF AYURVEDIC MANAGEMENT OF SEVER'S DISEASE

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Abstract-

Background - Sever's disease (also known as calcaneal apophysitis) is one of the most common causes of heel pain in growing children, especially children who are very physically active. It is an inflammation of the growth plate in the calcaneus (heel).¹

Aim & Objectives – This study aimed to access efficacy of *Ayurvedic* Management of Sever's disease.

Materials & methods – It is a single case study. A 12 yrs old boy complaining of bilateral heel pain while walking which aggravates by jumping was diagnosed as *Asthidhatu Kshayajanya Parshni Shool* and treated accordingly with *Ayurveda*. **Results** – Symptomatic relief and Radiographic changes shows satisfactory results. **Conclusion** - *Ayurveda* Management shows encouraging results in Sever's disease. No adverse effect was seen during treatment and in follow up period.

Keywords: Ayurveda, Sever's disease, Lakshadi guggul, Gandha tail, Arvindasav.

Introduction –

Sever's disease is the inflammation of the growth plate. It is caused by recurring stress to the heel during growth spurts. Spurt, bones, muscles, and tendons grow rapidly during a growth.²The heel bone could grow faster than the tendons and muscles in the leg. Making the muscles and tendons tight, it puts more stress on the growth plate, leading to inflammation of the growth plate.²

One of the most common cause of heel pain in growing children is Sever's disease / calcaneal apophysitis, especially children who are very physically active. It is an inflammation of the growth plate in the calcaneus (heel). Sever's disease is caused by repetitive stress to the heel. It most often occurs during growth spurts, when bones, muscles, tendons, and other structures are changing rapidly.

Repetitive stress from running, jumping, and other high-impact activities can cause pain and inflammation in this growth area of the heel which often comes and goes. Pulling of the Achilles tendon at its attachment point can sometimes further irritate the area.³ Children starts limping or walking on toes to avoid putting pressure on the heels.

Sever's disease affects the part of the growth plate at the back of the heel. This growth area serves as the attachment point for the Achilles tendon — the strong band of tissue that connects the calf muscles at the back of the leg to the heel bone.⁴

Current treatment option –

Reducing pain and swelling is main part of treatment. By limiting exercise activity until a child can enjoy activity without discomfort or significant pain afterwards. Nonsteroidal anti-inflammatory drugs, wearing shoes with a slightly elevated heel, use of heel pads are some other treatments to reduce pain and inflammation.⁵

Vitiated *vata, rakta -asthi dhatu dushti, snayu dushti* should be considered while treating Severs disease through *Ayurveda*.

Case Report

Age -12yrs.

Gender – Male

Occupation – Student (7th std.)

Chief complaints and duration –

Bilateral heel pain during walking.

It gets aggravated by jumping..... since 1 year

History of present illness –

In Oct 2020, patient was diagnosed as Left heel osteochondritis by orthopaedic surgeon. He was treated with Tab.Mahanac-P and Tab.Orocal but didn't get relief. So, he came for *Ayurvedic* treatment.

Past history –

No H/O chronic illness, any surgery.

Family History –

Paternal – Father – Lumber Spondylosis

Grandfather – Angioplasty, bilateral osteoarthritis

Cousin sister – Thalassemia major

Maternal - Mother – Manyashool

Grandmother – Bilateral knee joint pain

Personal history –

Diet – Vegetarian (Daily intake of Biscuits/toasts/khari with tea)

Appetite – Good

Bowel – Irregular

Micturation – 4-5 times/ day

Sleep –Sound

Allergy –Nil

Addiction – No H/O chalk eating

General Examination –

Pluse – 86/min

Respiratory rate – 20/min

Temperature – 98F

Respiratory System - B/L air entry is clear.

Cardiovascular – S1 S2 heard

Assessment Criteria –

Pain was assessed using Numeric Pain Rating scale before and after treatment.

The NPRS is a segmented numeric version of the visual analog scale (VAS) in which a respondent selects a whole number (0-10 integers) that best reflects the intensity of his/her pain.

Investigation –

Radiological findings before treatment -



Diagnosis –

This patient had family history of Lumber Spondylosis, Bilateral osteoarthritis, Bilateral knee joint pain in both maternal and paternal side. So, *beejdushti* related to *asthidhatu* was taken into consideration. Patient was taking daily fermented bakery products (biscuits, toasts, khari).



This patient was diagnosed as *Asthidhatu Kshayjanya Parshnishool* according to his *hetusevan* and family history.

Treatment given –

It was given according to diagnosis as follows –

Table No. 1: Treatment given to patient -

Name of Drug	Dose of Drug	Timing of drug given
<i>Lakshadi guggulu</i>	250mg tab B.D	After lunch and dinner
<i>Padmakitta –</i>	250mg tab B.D	After lunch and dinner
<i>Aabhaguggulu</i>	250mg tab B.D	Morning and evening
<i>Gandh tail</i>	10-10 drops B.D	Morning and evening
<i>Arvindasav –</i>	10ml +1/2 cup warm water B.D	After lunch and dinner

Above treatment was given for a period of 3 months.

Observations-

After 14 days of treatment patient intensity of heel pain while walking was reduced drastically. There was also improvement in heel pain while jumping. Radiological observations was also very encouraging.

Table No.2:Effects of treatment on symptoms.

Heel Pain	Before Treatment	After 14 days treatment	After 3 months treatment
While walking	10	2	0
While jumping	10	3	1

After 3 months of treatment patient was advised for repeat X-ray.



Discussions –

According to ayurveda *asthi* is a *sthan* of *vata dosha*.⁶ All actions of muscles, tendons are under control of *vatadosha*.⁷ Pain (*shool*) is symptom occurs only due to vitiated *vatadosha*. So, while treating SD vitiated *Vata dosha*, *Rakta- Asthi dhatu dushti* is considered while treating this case.

*Lakshadi guggulu*⁹ and *Aabha guggulu*¹⁰ are *guggulukalpa* acting on *asthi dhatu* reducing pain and inflammation. *Gandh tail*¹¹ being a *sneha kalpana* acts on *vatadosha* and also specially has *Gamitva* to *Asthidhatu*. *Padmakitta*¹² is a *panchabhoutik kalp* which acts on *Rakta* and *Asthi Dhatu*. *Arvindasav*¹³ helps to improve strength, nutrition and digestive fire of children.

Conclusion –

One of the most common cause of heel pain among children between the ages of 10 to 12 years is SD. This study showed that *Ayurvedic Shaman Chikitsa* was very effective in management of SD. It has provided significant improvements in subjective and radiographic parameters indicating that improvement found in quality of life and daily activities till to date. Subjective and Radiological findings after 3 months treatment in this single case study have provided better hope and choice for better management of SD. However, some randomized clinical trials with large sample sizes are validated to confirm results.

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सारांश

सारांश - Sever's disease ये बढ़ते बच्चों में होने वाला और एडी में दर्द रहना यह लक्षण होनेवाला विकार है। इसमें चलते, भागते, दौड़ते वक्त एडी में दर्द होता है, जिसके वजह से बच्चा चलना छोड़ देता है या लंगडते चलता है। इसका बच्चों के जीवन कि गुणवत्ता पर बहुत प्रतिकूल प्रभाव पड़ता है। प्रस्तुत विवरण में Sever's disease का एक मामला दर्ज किया है जिसका आयुर्वेदिक निदान करके, आयुर्वेदिक संशमन चिकित्सा के द्वारा सफलता पूर्वक उपचार किया है। **मुख्य नैदानिक खोज** - विकिरण विज्ञान से बच्चे को Sever's disease होने का निदान हुआ। **निदान**- बच्चे का आयुर्वेद तरीके से पुरा इतिहास लेके अस्थी क्षय जन्य पार्श्वशूल ये निदान किया गया। **प्रबंधन दृष्टिकोण** - निदान के अनुसार वात प्रकोप, अस्थी-रक्त धातु दुष्टी ध्यान में रखते हुये लाक्षादी गुग्गुल, आभा गुग्गुल, गंध तेल, अरविन्दासव, पद्मकिट्ट कि योजना कि गयी। **निष्कर्ष** - उपचार के तीन महीने के बाद विकिरणविज्ञान में सकारात्मक बदल दिखे। रोगी का एडीदर्द पूरी तरह से चला गया।