

EFFECT OF RAKTAMOKSHANA ON CALCANEAL SPUR

Sonawane Abhinav Sangahvi Mahesh Dharne Vidya

Dept. of Shalya Tantra, Y. M. T. Ayurveda Collage, Navi Mumbai, India

ABSTRACT

Calcaneal spur is a non fatal common condition which makes life miserable due to pain. It's an abnormal bony growth either at the plantar aspect of the calcaneus or posterior aspect of calcaneum which is the larger tarsal bone forming the foot, at the attachment of plantar fascia and insertion of tendoachillis respectively. Available treatment with local steroids, NSAID's orally, ice packs, physiotherapy, and ultimately surgical intervention are all far from satisfactory. *Rakta mokshana* is one modality mentioned in Ayurvedic classics proved to have better results in such conditions. The study was conducted on 10 patients having classical symptoms of calcaneal spur. The principle of *Shrunga* was utilized to design & prepare the special *Raktamokshan Yantra* & used for *Raktamokshan* procedure. Marked reduction in the symptoms of calcaneal spur in the 10 patients on whom the modality was employed

Key Words: Calcaneal spur, *Raktamokshan*, *Shrunga*

INTRODUCTION

Calcaneal spur is a non fatal common condition which makes life miserable due to pain. It can be relieved by *Raktamokshana*. Calcaneal spur is the condition that exhibits intense pricking pain in the heel especially when the patient's foot touches the ground as the patient stands after rest. As the time advances patient gets constant discomfort on walking, after rest and climbing and alighting stairs. The clinical diagnosis can be substantiated by a radiograph of the foot which shows an abnormal growth of a bone in the form a hook either at the plantar aspect of the calcaneus or posterior aspect of calcaneum which is the larger tarsal bone forming the foot, at the attachment of plantar fascia and insertion of tendoachillis respectively. The pain is not due to spur or the bony growth but due to plantar fascia

itself or other soft tissue structures around it. This condition can be correlated with "*Vatakantaka*" in Ayurveda. Though the condition is not life threatening the pain caused by it is intense and causes life miserable. Therefore it is necessary that a cost effective modality should be developed as the available treatment with local steroids, NSAID's orally, ice packs, physiotherapy, and ultimately surgical intervention all these are far from satisfactory.

"*Raktamokshana*" is one such modality advocated by *Sushrutacharya* for *Vatakantak* and other conditions like *Gridhrasi*, *Koshtrukshirsa*, *Khanja*, *Pangulya* etc. Many senior practioners reported that "*Raktamokshan*" done locally relieves pain immediately and gives long term effect. Though "*Rakta mokshan*" is carried out by

various ways which can be classified as “Sarvadehik” and “Sthanik” is undertaken for disorders limited to few body parts. Before applying *Shringa* or *Alabu*, superficial incisions are taken and the hollowed instruments after creating partial vacuum placed on these bleeding incisions so as the blood is sucked in the vacuum. Using the same principle a modified technique producing vacuum with the help of modern gazette like suction machine can be used cautiously.

Materials and Methods

A) Materials:

1) Patients: 10 no. of patients showing classical sign and symptoms of Calcaneal spur of either sex were selected as per inclusion and exclusion criteria for dissertation work from IPD / OPD.

2) Raktamokshan Yantra: The principle of *Shringa* was utilized to design & prepare

Assessment Criteria:

	0	1	2	3
Intensity of Pain	No Pain	Mild (Pain not disturbing routine activity).	Moderate (Continuous pain without limping)	Severe (Pain with limping)
Occurrence of pain	No Pain	Only Early in the morning on touch with ground	In morning & on walking after rest	Throughout the day.
Tenderness	No tenderness	Pain on deep pressure	Pain on slight pressure	Pain on touch

Procedure of Raktamokshan Chikitsa:

Poorva Karma: Proper counseling & written consent of the patient was taken.

The site chosen for Raktamokshan was cleaned with antiseptic solution.

Pradhana Karma: The most tender or painful point on the medial or lateral side of heel was marked. *Pracchan Karma* (multiple superficial skin incisions) was performed on the marked region especially

the special *Raktamokshan Yantra* & used for *Raktamokshan* procedure.

3) Goghrit: Application of Authenticated and Standardized *Goghrit* was done over the *pracchan vrana* after *Raktamokshan* procedure.

B) Methodology:

Inclusion Criteria: Patients having pain and tenderness at heel region & showing Radiological calcaneal spur, Age group between 18 years to 70 years will be included. Patients of either sex were included.

Exclusion Criteria: Pathological & Traumatic disorders of ankle joint, Patients having major medical conditions like Diabetes, Hypertension, CA of any organ .

Lab Investigation: X-Ray of affected Ankle joint AP & Lat View, CBC/ESR, Blood sugar Fasting/ P.P.

design syringing instrument was fixed over the incisions & full suction was allowed.

Approximately 10cc blood was collected in the syringe.

Pashchat Karma: Application of *Goghrit* over *Pracchan Vrana* was done.

Schedule: The procedure was performed once and was repeated weekly for a month, if pain persists.

Observations and results: It was observed that 40% of the patients were females and

60% were male in the study. 40% of the patients were from the age group were in the age group of 41 to 50. . In first visit 50% patients had grade 2 intensity of pain and 50% had grade 3 pain. At the end of the study 70% patients had complete relief in pain and 30% patients had grade 1 intensity of pain. Similarly in first visit 70% patients had grade 2 occurrence of pain and 30%

patients had grade 3 occurrence of pain. At the end of the study only 20% patients had grade 1 pain rest 80% patients showed complete relief in this symptom. Patients with grade 3 tenderness were 20% with grade 2 were 40% and those with grade 1 were 40% in first visit. At the end of the study 80% patients had no tenderness.

Intensity of Pain

Grades	First visit	1 st follow up	2 nd follow up	3 rd follow up
Patients in Grade 0	0	1	6	7
Patients in Grade 1	0	6	2	3
Patients in Grade 2	5	3	1	0
Patients in Grade 3	5	0	3	0

	N	Mean	SD	SEM
Before Treatment	10	2.500	0.527	0.167
After Treatment	10	0.300	0.483	0.153
Difference	10	2.200	0.422	0.133

Occurrence of pain

Grades	First visit	1 st follow up	2 nd follow up	3 rd follow up
Patients in Grade 0	0	1	3	8
Patients in Grade 1	0	6	7	2
Patients in Grade 2	7	3	0	0
Patients in Grade 3	3	0	0	0

	N	Mean	SD	SEM
Before Treatment	10	2.300	0.483	0.153
After Treatment	10	0.200	0.422	0.133
Difference	10	2.100	0.568	0.180

Tenderness

	1 st follow up	2 nd follow up	3 rd follow up	1 st follow up
Patients in Grade 0	0	1	6	8
Patients in Grade 1	4	9	4	2
Patients in Grade 2	4	0	0	0
Patients in Grade 3	2	0	0	0

	N	Mean	SD	SEM
Before Treatment	10	1.800	0.789	0.249
After Treatment	10	0.200	0.422	0.133
Difference	10	1.600	0.699	0.221

DISCUSSION

All the patients had pain of varying intensities and tenderness. As they are

subjective feelings they were classified on four point scale to give objectivity to these symptoms and mean of that was calculated

at every follow up. On initial day superficial incisions were taken and *Rakta mokshan* was done. The incision has pain of their own hence the intensity of the pain and tenderness was not assessed immediately, and was assessed after the incisions healed i.e. 7th day. 1st follow up showed significant relief in the intensity of pain and tenderness. This relief went on increasing week after week and on 3rd follow up there was negligible pain. Similar results were seen in the symptom of occurrence of pain.

Pricking pain is experienced when the foot touches the ground by these patients generally in the morning when they get out of the bed. As the disease advances the edema around the spur increases and the heel becomes painful at various times. This occurrence of pain reduces significantly on the four point scale from the 1st follow up.

The results of the study suggests that the significant reduction of the pain, tenderness and occurrence of the pain is consistent with each other and is closely related to the reduction of oedema around the projection of the spur. The superficial incisions cause capillary bleeding. The suction effect increases capillary bleeding and even sucks intracellular fluid which is sucked along which the blood. Here it will be worthwhile to see the *samprapti* of *shotha* which clearly mentions that *rakta*, *pitta* and *kapha* are brought by the vitiated *vata dosha* at the peripheral vessels (*bahya sira*) which get locked due to which fluid from these blocked vessels with *rakta*, *pitta*, and *kapha* rose out in between *mamsa* and *twak* to cause *shotha*. This pathogenesis is broken by the *Rakta mokshan* with suction as it forcefully pulls the factors which block the

peripheral vessels (*bahya sira*) along with the fluid collected in between *mamsa* and *twaka* i.e. in the intercellular space. Therefore it can be safely concluded that this modality helps in reducing edema in the tissue around the spur resulting in the relief of the symptoms. It seems that this edema might reappear in the time to come which might require more settings of *Rakta mokshan*.

CONCLUSION

There is marked reduction in the most commonly observed symptoms i.e. intensity of pain, tenderness and occurrence of pain in the 10 patients on whom the modality was employed. It is not claimed that this study is the final answer to the agonizing problem but it throws a light on an easily available cost effective modality for this ailment. Larger sample size is required to establish the demographic and clinical results conclusively.

REFERENCES

1. Shushrut samhita Hindi Vyakhaya, Edited by Dr. Anantaram Sharma, Year 2009th edition, Published by Choukhamba Surbharti Prakashan, Varanasi.
2. Charak Samhita, Edited by Vidyadhar Shukla & Prof. Ravidatta Tripathi, Year 2006th edition, Published by Choukhamba Surbharti Prakashan, Varanasi.
3. Astang Hridaya Hindi Vyakhaya, Edited by Dr. Bhrmhananda Tripathi, Year 2007th edition, Published by Choukhamba Surbharti prakashan,
4. Varanashi. Madhav Nidan Hindi Vyakhaya Edited by Dr. Bhrmhananda Tripathi Year 2006th edition Choukhamba Surbharti Prakashan Varanasi.

5. Sushrut Samhita Dallahan Tika Year 2010th edition, Published by Choukhamba surbharti prakashan Varanasi.

6. A Manual on Clinical Surgery By Dr.S.Das 8th edition published by Dr.S.Das

7. Gray's Anatomy (The anatomical Basis of clinical Practise) 39th Edition/Elsevier Churchill Living stone.

8. Principles of Anatomy and Physiology 10th edition Tortora /Grabowski

9. Short Practice of Surgery 24th Edition By Bailey & Love

CORRESPONDING AUTHOR

Dr Abhinav Sonawane

MS Scholar, Department of Shalya Tantra

Y.M.T. Ayurveda Collage

Kharghar, Navi Mumbai, India

Source of support: Nil

Conflict of interest: None Declared