

**SURGICAL MANAGEMENT OF REFRACTORY RETRO-CALCANEAL BURSTITIS  
EVALUATION OF ITS RESULTS**Vinod Kumar K<sup>1</sup>, Ravikumar<sup>2</sup>, Sujai S<sup>3</sup>, M. K. Siddalingaswamy<sup>4</sup>**HOW TO CITE THIS ARTICLE:**

Vinod Kumar K, Ravikumar, Sujai S, M. K. Siddalingaswamy. "Surgical Management of Refractory Retro-Calcaneal Bursitis Evaluation of its Results". Journal of Evolution of Medical and Dental Sciences 2015; Vol. 4, Issue 50, June 22; Page: 8712-8715, DOI: 10.14260/jemds/2015/1261

**ABSTRACT: CONTEXT:** Heel pain is common in middle and elderly people due various causes. **BACKGROUND:** Retrocalcaneal bursitis may not respond for medical treatment and may need surgery for relief of pain. **AIM:** To study the results of surgical treatment in Retrocalcaneal bursitis. **MATERIALS AND METHODS:** The patients with refractory retrocalcaneal bursitis were taken up for the study. inclusion criteria is pain, swelling over postero superior aspect of the heel not responding to conservative treatment like heat, analgesics and local steroids. The only contraindication was uncontrolled diabetes. X-ray of heel lateral view was taken in all patients and prominence of postero superior part was assessed. Pre and postoperatively the foot were assessed by Ankle and foot scale. Through lateral incision the prominent bony prominence and retrocalcaneal bursa was excised. **RESULTS:** 25 patients with refractory retrocalcaneal bursitis underwent surgery. 15 males and 10 females with mean age of 46 years and mean duration for symptoms of one year and eight months and mean follow up period of one year and one month. The pre-operative ankle and foot scale score was 37 to 43 points with a median of 41 points. Post-operative score was 76 to 83 with a median of 81 points. 20 patients (80%) had complete relief of symptoms. Four patients (16%) had minimal pain after long walking. One patient had moderate pain restricting his daily activities (4%). **CONCLUSIONS:** surgical excision of prominent spur along with retrocalcaneal bursa gives good result.

**KEYWORDS:** Heel pain, Retro-calcaneal, Bursitis, Excision, Osteophyte.

**INTRODUCTION:** Retrocalcaneal bursitis is common in middle age and elderly people. The bursa is inflamed due to pressure and irritation by Postero superior spur of calcaneum during walking.<sup>[1,2]</sup> The patient presents with pain, swelling over posterior aspect of heel and limitation of walking and daily activities. Non operative measures like heat therapy, analgesics and sometimes steroid infiltration in to the bursa gives good relief.<sup>[3,4]</sup> Many patients do not respond to conservative treatment and these patients need surgical management.<sup>[5]</sup> Many surgical options are available namely excision of retrocalcaneal bursa, calcaneal osteotomy, and calcaneal osteotomy.<sup>[1,2,3,4,6,7,8,5]</sup> Adequate relief of symptoms is predicted on removing the factor responsible for irritation of bursa and tendoachillis.

**MATERIALS AND METHOD:** The patients who had retrocalcaneal bursitis not responding to conservative treatment were considered for study. The study period was from May 2013 to September 2014. All patients had heat therapy, analgesics and local steroid injection without any relief of symptoms. Preoperative assessment for ankle and foot score was done.<sup>[9]</sup> X-ray of heel lateral view was taken to evaluate for Postero superior osteophyte.

## ORIGINAL ARTICLE

---

**Surgery:** Through a lateral approach retrocalcaneal bursa was exposed and excised. Care was taken not to damage the Tendoachillis. The Postero superior spur was excised using an osteotome. Post operatively immobilization was done for three weeks using BK pop slab. After three weeks active exercises were started and weight bearing was allowed. Post-operative assessment was done using ankle foot scale at three weeks, six weeks, three months, six months and one year.

**OBSERVATIONS:** Twenty five patients who had refractory retrocalcaneal bursitis were included in the study. The age of the patients varied from 43 years to 72 years with an average of 52 years. There were 15 males and 10 females. The duration of symptoms varied from one year to three years with an average of one year and eight months. The follow up period varied from six months to one year ten months with an average of one year and one month. Post operatively the patients were evaluated using ankle and foot scale.<sup>[10]</sup> The pre-operative score varied from 37 to 43 points with an average of 41 points and postoperatively the score varied from 81 to 83 points with an average of 82 points. Out of 25 patients 20 patients had complete relief of symptoms by three months. Five patients had relief of symptoms but mild pain was present after long walking not affecting the daily activities. Two patients had superficial infection which subsided with antibiotics. Relief of symptoms achieved by 12 weeks.

**DISCUSSION:** Retrocalcaneal bursitis is quite common and sometimes does not respond to conservative treatment. In these cases surgery is indicated. Resection of Postero superior spur or calcaneal ostectomy along with excision of bursa is done to prevent recurrent bursitis and pressure on the tendoachillis. Various surgical approaches are available namely lateral, medial and tendon splitting approach. We used lateral approach and excised the Postero superior spur and the retrocalcaneal bursa. There was complete relief of symptoms in 20 patients (80%) and mild pain persisted on long walking in five patients (20%) not affecting their daily activities. There was no sports person in this study.

**SUMMARY:** Refractory Retrocalcaneal bursitis may need surgery to relieve the symptoms. In our study excision of Postero superior spur and retrocalcaneal bursa through lateral approach gave satisfactory result.

**ACKNOWLEDGEMENT:** No financial or material supply has been received for this study.

### **BIBLIOGRAPHY:**

1. Angermann P. Chronic retrocalcaneal bursitis treated by resection of calcaneus. *Foot Ankle* 1990; 10: 285-287. [Pub Med].
2. Brunner J, Anderson JA, Marshall JL et all. Physician and patient based out comes following surgical resection of Haglund's deformity. *Acta Orthop, Bel.*2005; 71: 718-723. [Pub Med].
3. Green AH, Hass MI, Tubridy SP et all Calcaneal osteotomy for retro calcaneal exostosis. *Clin Podiatr Med Surg.* 1991; 8: 659-665. [Pub Med].
4. Huber HM. Prominence of calcaneus: Late results of bone resection. *J Bone Joint Surg. Br* 1992; 74: 315-316. [Pub Med].
5. Sammarco GJ, Taylor AL. Operative management of Haglund's deformity in the non-athlete: a retrospective study. *Foot Ankle Int.* 1998; 19: 724-729. [Pub Med].
6. Jones DC, James SL. Partial calcaneal osteotomy for retrocalcaneal bursitis. *AM J Sports Med.* 1984; 12: 72-73. [Pub Med].

## ORIGINAL ARTICLE

7. Lohrer H, Nauck T, Dom NV, Konerding MA. Comparison of endoscopic and open resection for Haglund tuberosity in a cadaveric study. *Foot Ankle Int.* 2006; 27: 445-450. [Pub Med].
8. Pauker M, Katz K, Yosipovich Z. Calcaneal osteotomy for Haglund disease. *J Foot Surg.* 1992; 31: 588-789. [Pub Med].
9. Kitaoka HB, Alexander IJ, Adelaar RS et al. Clinical rating system for the Ankle – hind foot, mid foot, hallux and lesser toes. *Foot Ankle Int.* 1994; 15: 349-353. [Pub Med].
10. McGarvey WC, Palumbo RC, Baxter De, Leibman bd. Insertional Achilles tendinosis: surgical treatment through a central tendon splitting approach. *Foot Ankle Int.* 2002; 23: 19-25. [Pub Med].



**Fig. 1: Lateral view of the heel  
[Arrow pointing to Swelling]**



**Fig. 2: X-Ray Lateral View of the Heel**



**Fig. 3: X-Ray Showing Proposed Surgery Red Line:  
Proposed Osteotomy Site of the Calcaneum; Yellow  
Oval: Site of Bursa Planned For Excision**

## ORIGINAL ARTICLE

### AUTHORS:

1. Vinod Kumar K.
2. Ravikumar
3. Sujai S.
4. M. K. Siddalingaswamy

### PARTICULARS OF CONTRIBUTORS:

1. Post Graduate, Department of Orthopaedics, MVJ Medical College & Research Hospital, Bangalore.
2. Associate Professor, Department of Orthopaedics, MVJ Medical College & Research Hospital, Bangalore.
3. Assistant Professor, Department of Orthopaedics, MVJ Medical College & Research Hospital, Bangalore.

### FINANCIAL OR OTHER

**COMPETING INTERESTS:** None

4. Professor & HOD, Department of Orthopaedics, MVJ Medical College & Research Hospital, Bangalore.

### NAME ADDRESS EMAIL ID OF THE CORRESPONDING AUTHOR:

Dr. Sujai S,  
Flat No. 204, JRS Complex,  
Above New Life Hospital,  
Opp. Whitefield Railway Station Entrance,  
Kadugodi Main Road,  
Kadugodi, Bangalore-560067.  
E-mail: drsujaisukumaran@gmail.com

Date of Submission: 24/04/2015.  
Date of Peer Review: 25/04/2015.  
Date of Acceptance: 13/06/2015.  
Date of Publishing: 19/06/2015.