

# Functional outcome and quality of life following treatment for post-traumatic osteomyelitis of long bones

Free Full Text from Publisher

Full Text Links ▾

Export ▾

Add To Marked List ▾

&lt; 1 of 1 &gt;

## Source

SINGAPORE MEDICAL JOURNAL ▾

Volume: 63 Issue: 5 Page: 251-255

DOI: 10.11622/smedj.2020164

## Published

MAY 2022

## Indexed

2022-09-09

## Document Type

Article

## Jump to

↓ [Enriched Cited References](#)

## Abstract

**INTRODUCTION** The clinical outcomes and factors associated with treatment failure of post-traumatic osteomyelitis have been investigated in many studies. However, limb functionality and quality of life following treatment for this condition have not been thoroughly studied. **METHODS** This cross-sectional study included 47 patients with post-traumatic osteomyelitis of the lower limb. Functional outcome was assessed using the Lower Extremity Functional Score (LEFS), and quality of life was assessed using the validated Malay version of the Short Form-36 questionnaire version 2. **RESULTS** The mean follow-up period was 4.6 (range 2.3-9.5) years, and the median age of the patients was 44 years. Osteomyelitis was located in the tibia for 26 patients and in the femur for 21 patients. Osteomyelitis was consequent to internal infection in 38 patients and due to infected open fractures in nine patients. 42 (89.4%) patients had fracture union and control of infection. Bone defect was found to be a significant contributing factor for treatment failure ( $p = 0.008$ ). The median LEFS for the success group was 65, compared to 49 for the failure group. Although the success group showed better scores with regard to quality of life, the difference between the two groups was not statistically significant. **CONCLUSION** Treatment of post-traumatic osteomyelitis of the lower limb had a high success rate. The presence of a bone defect was associated with treatment failure. Successfully treated patients had significantly better functional outcomes than in those in whom treatment failed.

## Keywords

**Author Keywords:** [femur](#); [functional outcome](#); [health-related quality of life](#); [osteomyelitis](#); [tibia](#)

## Author Information

Corresponding Address: Yusof, Nazri Mohd (corresponding author)

Int Islamic Univ Malaysia, Fac Med, Dept Orthopaed Traumatol & Rehabil, Kuantan 25150, Pahang, Malaysia

E-mail Addresses :

[nazrimy2000@gmail.com](mailto:nazrimy2000@gmail.com)

Addresses :

<sup>1</sup> Hosp Tengku Ampuan Najihah, Dept Orthopaed, Kuala Pilah, Negeri Sembilan, Malaysia

<sup>2</sup> Int Islamic Univ Malaysia, Fac Med, Dept Orthopaed Traumatol & Rehabil, Kuantan 25150, Pahang, Malaysia

<sup>3</sup> Int Islamic Univ Malaysia, Fac Med, Dept Community Med, Kuantan, Pahang, Malaysia

E-mail Addresses :

[nazrimy2000@gmail.com](mailto:nazrimy2000@gmail.com)

## Categories/ Classification

Research Areas: General &amp; Internal Medicine

Citation Topics: [1 Clinical & Life Sciences](#) > [1.23 Antibiotics & Antimicrobials](#) > [1.23.944 Musculoskeletal Infections](#)

Web of Science Categories

Medicine, General &amp; Internal

[+ See more data fields](#)

## Journal information

SINGAPORE MEDICAL JOURNAL ▾

**0.51**Journal Citation  
Indicator™ (2024)

ISSN 0037-5675

eISSN 2737-5935

**Current Publisher** WOLTERS KLUWER MEDKNOW PUBLICATIONS, WOLTERS KLUWER INDIA PVT LTD, A-202, 2ND FLR, QUBE, C T S NO 1498A-2 VILLAGE MAROL, ANDHERI EAST, MUMBAI, Maharashtra 400059, INDIA

**Research Areas** General & Internal Medicine

**Web of Science Categories** Medicine, General & Internal

## Citation Network

In Web of Science Core Collection

**4**  
Citations[🔔 Create citation alert](#)[+ See more times cited](#)**16**  
Cited References[→ View Related Records](#)

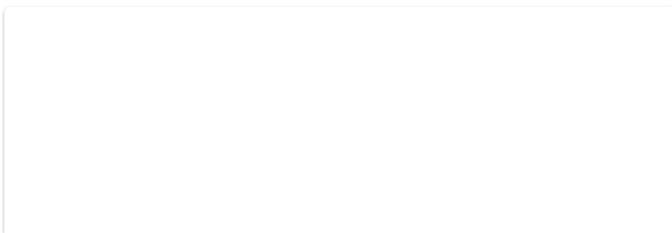
How does this document's citation performance compare to peers?

[← Open comparison metrics panel](#)

Data is from InCites Benchmarking &amp; Analytics

## Citing items by classification

Breakdown of how this article has been mentioned, based on available citation context data and snippets from 1 citing item(s).



## Use in Web of Science

**0**  
Last 180 Days**2**  
Since 2013[Learn more →](#)

## This record is from:

Web of Science Core Collection

- Science Citation Index Expanded (SCI-EXPANDED)

## Suggest a correction

If you would like to improve the quality of the data in this record, please [Suggest a correction](#)



### Most Recently Cited by

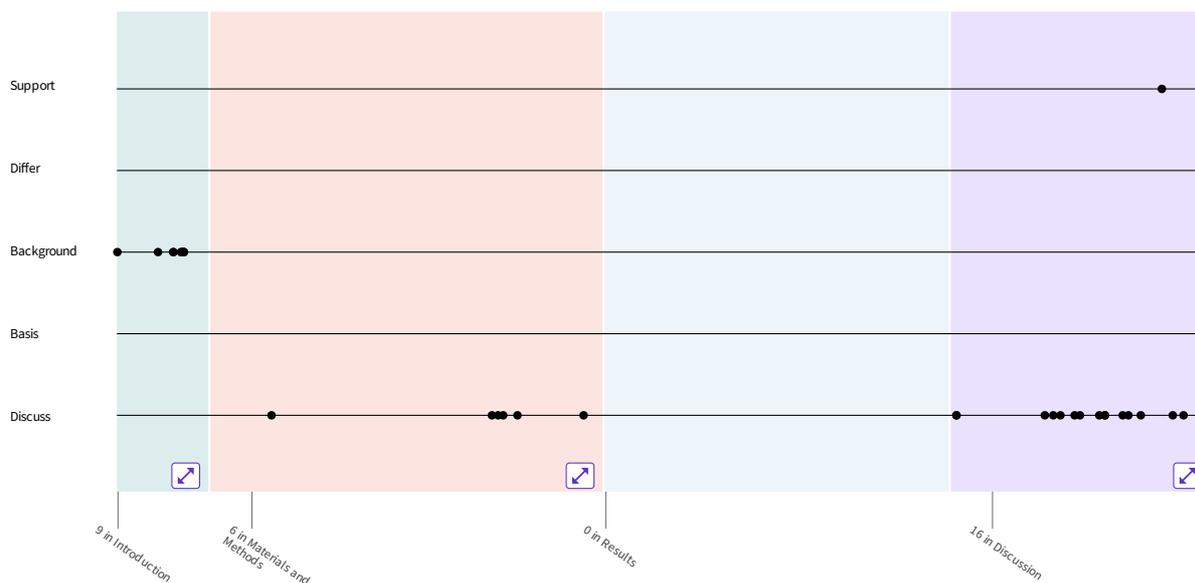
Buijs, MAS; Haidari, S; Govaert, GAM; et al.  
 What can they expect? Decreased quality of life and increased postoperative complication rate in patients with a fracture-related infection  
 INJURY-INTERNATIONAL JOURNAL OF THE CARE OF THE INJURED

Jiamton, C; Apivatgaroon, A; Chernchujit, B; et al.  
 Efficacy and Safety of Antibiotic Impregnated Microporous Nanohydroxyapatite Beads for Chronic Osteomyelitis Treatment: A Multicenter, Open-Label, Prospective Cohort Study  
 ANTIBIOTICS-BASEL

### 16 Cited References

[→ View as set of results](#)

#### Explore



Showing 16 of 16

First appearance ▾

(from Web of Science Core Collection)

### 1 Chronic osteomyelitis - The effect of the extent of surgical resection on infection-free survival

Simpson, AHRW; Deakin, M and Latham, JM  
 Apr 2001 | JOURNAL OF BONE AND JOINT SURGERY-BRITISH VOLUME 83B (3) , pp.403-407

[Free Full Text From Publisher](#) ...

Cited in Article: 3

166 Citations

18 References

[Related records](#)

2	<p><b>Long-term functional and quality of live assessment following post-traumatic distraction osteogenesis of the lower limb</b></p> <p>Schep, NWL; van Lieshout, EMM; (...); Vogels, LMM Dec 2009   STRATEGIES IN TRAUMA AND LIMB RECONSTRUCTION 4 (3) , pp.107-112</p> <p><a href="#">Free Full Text from Publisher</a> ...</p> <p>Cited in Article: 1</p>	<p>19 Citations</p> <hr/> <p>14 References</p> <hr/> <p>Related records</p>
3	<p><b>Osteomyelitis in long bones</b></p> <p>Lazzarini, L; Mader, JT and Calhoun, JH Oct 2004   JOURNAL OF BONE AND JOINT SURGERY-AMERICAN VOLUME 86A (10) , pp.2305-2318</p> <p><a href="#">Full Text at Publisher</a> <a href="#">View Full Text on ProQuest</a> ...</p> <p>Cited in Article: 1</p>	<p>250 Citations</p> <hr/> <p>121 References</p> <hr/> <p>Related records</p>
4	<p><b>Long Bone Osteomyelitis in Adults: Fundamental Concepts and Current Techniques</b></p> <p>Sanders, J and Mauffrey, C May 2013   ORTHOPEDICS 36 (5) , pp.368-375</p> <p><a href="#">Full Text at Publisher</a> <a href="#">View Full Text on ProQuest</a> ...</p> <p>Cited in Article: 1</p>	<p>59 Citations</p> <hr/> <p>30 References</p> <hr/> <p>Related records</p>
5	<p><b>Aggressive management of tibial osteomyelitis shows good functional outcomes.</b></p> <p>Campbell, Raewyn; Berry, M G; (...); Harris, Ian A 2011-01-25   Eplasty 11 , pp.e3</p> <p>Cited in Article: 2</p>	<p>7 Citations</p> <hr/> <p>0 References</p>
6	<p><b>A lack of consensus in the assessment of fracture healing among orthopedic surgeons</b></p> <p>Bhandari, M; Guyatt, GH; (...); Schemitsch, EH Sep 2002   JOURNAL OF ORTHOPAEDIC TRAUMA 16 (8) , pp.562-566</p> <p><a href="#">Full Text at Publisher</a> ...</p> <p>Cited in Article: 1</p>	<p>251 Citations</p> <hr/> <p>30 References</p> <hr/> <p>Related records</p>
7	<p><b>Quality of life after surgical treatment of osteitis</b></p> <p>Liener, UC; Enninghorst, N; (...); Suger, G Jun 2003   UNFALLCHIRURG 106 (6) , pp.456-460</p> <p><a href="#">Full Text at Publisher</a> ...</p> <p>Cited in Article: 1</p>	<p>8 Citations</p> <hr/> <p>18 References</p> <hr/> <p>Related records</p>
8	<p><b>Long-Term Results and Costs of Muscle Flap Coverage With Ilizarov Bone Transport in Lower Limb Salvage</b></p> <p>Lowenberg, DW; Buntic, RF; (...); Parrett, BM Oct 2013   JOURNAL OF ORTHOPAEDIC TRAUMA 27 (10) , pp.576-581</p> <p><a href="#">Full Text at Publisher</a> ...</p> <p>Cited in Article: 1</p>	<p>41 Citations</p> <hr/> <p>28 References</p>

		Related records
9	<p><b>Limb salvage for chronic tibial osteomyelitis: An outcomes study</b></p> <p>Siegel, HJ; Patzakis, MJ; (...); Shepherd, L  Mar 2000   JOURNAL OF TRAUMA-INJURY INFECTION AND CRITICAL CARE 48 (3) , pp.484-489</p> <p>Full Text at Publisher ...</p> <p>Cited in Article: 3</p>	<p>32 Citations</p> <hr/> <p>30 References</p> <hr/> <p>Related records</p>
10	<p><b>Quality of life of the Malaysian general population: results from a postal survey using the SF-36.</b></p> <p>Azman, A B; Sararaks, S; (...); Tiew, C T  2003-dec   The Medical journal of Malaysia 58 (5) , pp.694-711</p> <p>Cited in Article: 2</p>	<p>44 Citations</p> <hr/> <p>0 References</p>
11	<p><b>Long-term results of multiple-stage treatment for posttraumatic osteomyelitis of the Tibia</b></p> <p>Tulner, SAF; Schaap, GR; (...); Marti, RK  Mar 2004   JOURNAL OF TRAUMA-INJURY INFECTION AND CRITICAL CARE 56 (3) , pp.633-642</p> <p>Full Text at Publisher ...</p> <p>Cited in Article: 2</p>	<p>30 Citations</p> <hr/> <p>17 References</p> <hr/> <p>Related records</p>
12	<p><b>The lower extremity functional scale (LEFS): Scale development, measurement properties, and clinical application</b></p> <p>Binkley, JM; Stratford, PW; (...); Riddle, DL  Apr 1999   PHYSICAL THERAPY 79 (4) , pp.371-383</p> <p>...</p> <p>Cited in Article: 1</p>	<p>1,247 Citations</p> <hr/> <p>49 References</p> <hr/> <p>Related records</p>
13	<p><b>Muscle flaps in the treatment of osteomyelitis of the lower extremity</b></p> <p>Gonzalez, MH and Weinzweig, N  May 2005   JOURNAL OF TRAUMA-INJURY INFECTION AND CRITICAL CARE 58 (5) , pp.1019-1023</p> <p>Full Text at Publisher ...</p> <p>Cited in Article: 6</p>	<p>29 Citations</p> <hr/> <p>19 References</p> <hr/> <p>Related records</p>
14	<p><b>Risk factors and treatment outcomes in osteomyelitis</b></p> <p>Tice, AD; Hoaglund, PA and Shoultz, DA  May 2003   JOURNAL OF ANTIMICROBIAL CHEMOTHERAPY 51 (5) , pp.1261-1268</p> <p>Full Text at Publisher ...</p> <p>Cited in Article: 2</p>	<p>153 Citations</p> <hr/> <p>43 References</p> <hr/> <p>Related records</p>
15	<p><b>Predisposing factors for recurrence of chronic posttraumatic osteomyelitis: a retrospective observational cohort study from a tertiary referral center in Brazil</b></p> <p>Jorge, LS; Chueire, AG; (...); Salles, MJ  Jun 2 2017   PATIENT SAFETY IN SURGERY 11</p>	<p>13 Citations</p> <hr/> <p>36 References</p>

16 **Functional Outcome in Patients Treated for Chronic Posttraumatic Osteomyelitis**

Egol, KA; Singh, JR and Nwosu, U

Dec 2009 | BULLETIN OF THE HOSPITAL FOR JOINT DISEASES 67 (4) , pp.313-317

---

10  
[Citations](#)

---

14  
[References](#)

