

Case Report

Case Report on Bacterial Infection after Skin Burn: Complications and Management

¹Kayande A, ²Magar D S

¹Department of Microbiology, Jayawantrao Sawant Commerce and Science College, Hadapsar, Pune, Maharashtra, India.

²Department of Microbiology, S.M. Joshi College, Hadapsar, Pune, Maharashtra, India.

Article Info

Article history:

Received: October 24, 2023

Accepted: January 17, 2024

Published: January 22, 2024

Corresponding Author: Amol Kayande **Email:** amolkayande222@gmail.com

©Author(s). This work is licensed under a [Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International License](https://creativecommons.org/licenses/by-nc/4.0/) that permits noncommercial use of the work provided that credit must be given to the creator and adaptation must be shared under the same terms.

Bacterial skin infections are common dermatological conditions that vary in severity and etiology. They have potential impact on public health [1]. The patients admitted to the hospital after burn injuries are on the risk of hospital associated infections [2]. This case report focuses on a patient who presented with a bacterial skin infection, emphasizing the importance of prompt diagnosis and treatment including complications and long-term follow-up.

A 21-year-old male was having significant 3-10 days medical history of fever, fatigue, pus formation and a rapidly spreading skin rash (figure 1). The patient had got electric shock on his right hand on 23 December 2022. As a result, some skin part of his hand was burnt. Doctor removed the damaged part of the skin and implemented 1st dressing (figure 1). However, unfortunately, after 3 days, the patient suffered from wound infection.

The physical examination raised concerns about the bacterial infection. The patient exhibited significant systemic signs of illness, including fever, tachycardia, and a diffused rash. Due to electric shock, his electrolytes balance was disturbed. Laboratory tests revealed leukocytosis with bacterial pus formation.

After the first dressing, he was called after 3 days for the 2nd dressing. The doctor cleaned the wound and applied Bactigras and Silverex ointments during the 2nd dressing. To add, he recommended oral therapy with 500 mg cephalexin with a dosage as daily three times for seven days. Moreover, painkiller was being used two times a day. He was advised to keep the affected area elevated and to monitor for any signs of systemic infection. The patient's fever subsided within two days, and the erythema and swelling gradually reduced. He completed the full course of antibiotics and dressings on time and showed complete resolution of the infection (figure 1).

This case highlights the importance of a thorough clinical examination and appropriate diagnostic tests. Early diagnosis and targeted antibiotic therapy leads to a successful outcome. Bacterial skin infections, such as cellulitis, can vary in appearance. Timely diagnosis and appropriate antibiotic treatment are essential for successful management. This case underscores the significance of clinical acumen and laboratory testing in ensuring favorable outcomes for patients with bacterial skin infections.

Author contributions: AK: Developed and idea and wrote the manuscript. DSM: Verified the manuscript.

Competing interest: Authors declare that no conflict of interest exists.

Ethical Statement: This work has been performed with official permission of the patient under study.

Grant Support Details: Authors did not get funding from any agency to complete this work.

References:

1. Doron S, Gorbach SL. Bacterial Infections: Overview. International Encyclopedia of Public Health. 2008:273–82. doi: 10.1016/B978-012373960-5.00596-7. Epub 2008 Aug 26. PMID: PMC7149789.
2. Lachiewicz AM, Hauck CG, Weber DJ, Cairns BA, Van Duin D. Bacterial infections after burn injuries: impact of multidrug resistance. Clinical Infectious Diseases. 2017 Nov 29;65(12):2130-6.

Cite this article as:

Kayande A, Magar DS. Case Report on Bacterial Infection after Skin Burn: Complications and Management. Int. J. Micro. Sci. 2024; 5(1), 6-8.

Appendix 1

First day of injury



First Dressing by removing damage skin



Infection observed



After 40 days



Used Bactigras, Silverex Ointment, suggested antibiotics, and dressing on time to time



Figure 1: Different stages of skin burn and its treatment.