

REVIEWER'S REPORT

Manuscript No.: IJAR-53009

Title: Biofilm of staphylococcus aureus on different dentures materials

Recommendation:

Accept as it is

Accept after minor revision.....

Accept after major revision

Do not accept (*Reasons below*)

Rating	Excel.	Good	Fair	Poor
Originality		✓		
Techn. Quality			✓	
Clarity			✓	
Significance		✓		

Reviewer Name: Mir Tanveer

Reviewer's Comment for Publication.

The manuscript presents a comprehensive and well-structured overview of the biofilm-forming capacity of *Staphylococcus aureus* on various denture materials, emphasizing its clinical relevance, pathogenic potential, and implications for prosthetic dentistry and systemic health. The topic is timely and significant, particularly given the increased use of dental prosthetics and the heightened vulnerability of immunocompromised populations.

The **abstract** clearly identifies *S. aureus* as a common opportunistic pathogen with a strong tendency to form biofilms on abiotic surfaces, including dental prostheses. It effectively outlines the associated complications, including antimicrobial resistance, systemic infections, and denture stomatitis. The summary also highlights the clinical importance of understanding biofilm dynamics in cancer patients and the need for improved denture materials that resist microbial adhesion. The discussion of plant-based antibacterial agents as safer alternatives for managing denture-related infections adds depth and relevance.

The **introduction** offers a concise yet informative background on *S. aureus*, describing its role as both a commensal and a pathogen. The epidemiological data provided supports the urgency of research into *S. aureus*-related infections, especially in the context of oral and prosthetic health. The description of *S. aureus* as the leading bacterial cause of death in numerous countries underscores the pathogen's global health significance.

The manuscript succeeds in tying together the microbiological characteristics of *S. aureus*, its clinical manifestations, and its interaction with dental materials. It also acknowledges the multifactorial nature of denture stomatitis and provides a rationale for further examination of biofilm prevention strategies. The emphasis on surface properties, longevity, and biocompatibility of denture materials demonstrates an interdisciplinary approach that bridges microbiology, materials science, and clinical dentistry.

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Overall, the content is scientifically sound, well-organized, and appropriately focused on both the microbiological and clinical aspects of the subject. It offers valuable insights for researchers, dental professionals, and clinicians interested in prosthodontic infections and antimicrobial strategies.