

The Role of Artificial Intelligence on Cleft Lip Surgery

Trisha Jois

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Introduction:

The field of dentistry is embracing rapid advancements to align itself with our changing society. Within dentistry, cleft lip surgery holds significant importance. Cleft lip, a congenital condition affecting thousands annually, often requires surgical intervention for functional and psychological well-being. Integrating Artificial Intelligence (AI) into cleft lip surgery shows promising potential, as the AI's ability to simulate human intelligence offers innovative approaches, enhancing surgical precision and outcomes, and thereby positively impacting countless lives.

Objectives:

The objectives of the study were to study the effect of AI on various aspects of cleft lip repair, to analyze the procedural process as well as the ethical aspect regarding the usage of materials, as well as to evaluate how the addition of AI management would contribute to the overall improvement of these factors

Methods:

The research methodology of this study consists of analyzing different research publications such as Pub Med and Open Dentistry Journal, looking for trends and similarities in the content, and measuring how the content relates to the role of AI in cleft lip procedures.

Results/ Conclusion:

The objectives identified originally were successfully achieved through a comprehensive case study analysis, which established a foundational understanding of AI's impact on cleft lip and dental interventions. Additionally an exploration of procedural processes, ethical considerations, and technological applications in detecting and treating cleft lips, including fetal care was observed. Moreover, by examining AI management within a business context, we gained numerous insights into its limitations due to constrained professional availability. This study provided a broader perspective on AI's role in dentistry and cleft lip repair, underscoring its potential benefits while highlighting constraints in certain scenarios.

Key Words: AI, Dental, Cleft Lip, Maxifocal Surgery