**AI for Clinicians: Today's Applications, Tomorrow's Innovations**

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Artificial Intelligence (AI) is establishing itself as a key partner in dental surgery, moving beyond a simple auxiliary tool to shift the paradigm of diagnosis and treatment. This lecture aims to share the current status of rapidly evolving AI technologies and provide insights into their clinical applications and future innovations. To this end, the session analyzes the mechanisms and clinical data of AI-driven diagnostic imaging, 3D surgical simulation software, and particularly robotic systems assisting in procedures such as implant surgery, supported by specific case studies. The integration of AI has not only significantly enhanced the precision of preoperative diagnosis but has also demonstrated performance in minimizing human errors and reducing variability based on clinician experience, thereby delivering safer and more predictable outcomes for patients. In conclusion, AI is evolving into 'Augmented Intelligence' that maximizes the capabilities of clinicians, and the future of dental surgery will achieve precision medicine through organic collaboration with AI. This lecture is expected to provide valuable insights for clinicians to proactively adapt to the transformative changes in the surgical environment.

Profile
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