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Intraoperative Molecular Imaging for Precision Cancer Surgery

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Abstract

Intraoperative molecular imaging (IMI) is a rapidly advancing technology that integrates molecular-level information with real-time surgical visualization, enabling precision tumor resection and improved surgical outcomes. By enhancing the ability to identify cancerous tissue during surgery, IMI helps surgeons to more accurately delineate tumors from healthy tissue, ensuring more complete resections. This article explores the applications, benefts, challenges, and future perspectives of IMI in cancer surgery. We discuss various imaging modalities, including fuorescence-guided surgery, positron emission tomography (PET), and intraoperative MRI, and how they contribute to better decision-making during tumor removal procedures.

Keywords: ; - ; E ; ; C

Introduction

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Conclusion

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