Clinical Evidence of Combining Radiopharmaceutical Therapy With Immune Checkpoint Inhibitors

Introduction

Radiopharmaceutical therapy (RPT) and immune checkpoint inhibitors (ICIs) represent transformative approaches to treating metastatic cancers. This review article discusses how RPT delivers targeted radiation to primary and metastatic tumors and the therapeutic advantages of combining RPT with ICIs while focusing on outcomes and challenges such as toxicity, immunosuppressive tumor microenvironment, and logistical barriers.

Learning Objectives

Upon completing this activity, the reader should be able to:

1. Distinguish the physical properties of α, β, and Auger-emitting radioisotopes to guide informed selection of radionuclides for RPT based on therapeutic goals and tumor characteristics.
2. Evaluate clinical trial data on RPT-ICI combinations and integrate evidence-based insights into patient selection, dosing strategies, and treatment sequencing for optimized therapeutic outcomes.

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Target Audience

- Radiologists
- Related imaging professionals

Commercial Support

None

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