**Poster**
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# Artificial Intelligence in Malignancy: A Comprehensive Review with Emphasis on Breast and Thyroid Cancers

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## Abstract

This comprehensive review examines the expansive role of artificial intelligence (AI) in oncology, with a particular focus on breast and thyroid cancers. It delves into AI's mechanisms, notably machine learning (ML) and deep learning (DL), which are instrumental in deciphering complex patterns across vast datasets, thereby augmenting diagnostic accuracy. ML facilitates AI's ability to learn from data, while DL, a specialized branch of ML, employs neural networks for identifying subtle characteristics, offering profound insights into cancer research. This review synthesizes insights from various sources, including academic texts and pertinent articles, to provide a detailed overview of AI's current applications, challenges, and breakthroughs in cancer care. It highlights the transformative impact of AI technologies on the diagnosis and treatment of cancer, offering a comprehensive analysis of how these innovations are revolutionizing oncological care across diagnostic and therapeutic domains.

***Keywords:*** Artificial intelligence, Cancer care, Breast cancer, Thyroid cancer, Machine learning, Deep learning, Diagnostic advancements, Therapeutic innovations, Neural networks

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