

Radiation Oncology: Breast Cancer

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Abstract

This project explains breast cancer and the role of radiation therapy. Breast cancer is the most commonly diagnosed malignancy in the world for women. Types of breast cancers, the pathology and risk factors associated, the signs and symptoms, imaging, simulation setup, diagnosis, and treatment, as well as some general statistics and prevention are discussed. In 2022, 280,000 new cases of breast cancer occurred with 40,000 deaths occurring. Breast cancer should be known as it affects 1 in 8 women are diagnosed within their lifetime. Treatment of breast cancer with radiation therapy is roughly 4-7 weeks. The radiation is not felt when entering the body but may cause some changes within the skin as it can become dry, red, and irritating. Radiation therapy is essential in management of breast cancer after surgical removal of the tumor. Performing self-breast exams, drinking in moderation, exercise, healthy weight and diet, and regular screenings are crucial in helping prevent breast cancer.

Keywords: radiation therapy, breast cancer