

The Utilization of Radiation Therapy for Benign Pathologies

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Abstract

This research addressed how radiation therapy can be utilized to treat not only malignancies, but also benign pathologies. Radiation therapy utilizes high-energy radiation in the forms of x-rays, gamma rays, neutrons, protons, and other sources aimed at a precise point in the body to kill unwanted cells and shrink tumors. Treatment plans are created and are unique to every patient. Special equipment like a gamma knife, electron beam, stereotactic radiosurgery, or even proton therapy are selected based on patient condition and tumor location. A benign pathology consists of localized growths that provide low potential for progression. The most common pathologies treated using radiation therapy include meningiomas, eczema, keloid scars, schwannomas, and plantar fasciitis. Radiation therapy treatments for benign tumors are not as common, but are typically used when the area is difficult to reach or surgery has a higher risk for complications. Patients typically seek the anti-inflammatory effects that come from radiation therapy for benign pathologies.

Keywords: Radiation therapy, Benign pathologies, Tumors, Treatment, Linear accelerator