

عنوان مقاله:

A comparison of contralateral breast dose due to cancer breast radiotherapy using different treatment machine in Shahid Ramezanzadeh radiotherapy center, Yazd

محل انتشار:

دوازدهمین کنگره بین المللی سرطان پستان (سال: 1394)

تعداد صفحات اصل مقاله: 1

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خلاصه مقاله:

Introduction & Aim: The radiation dose received by contralateral breast (CLB) is one of the concerns of breast radiotherapy, because may lead to induction of secondary breast cancer. The aim of this study was to evaluate the CLB surface dose in the breast treatment in Yazd radiotherapy center. **Methods:** The surface dose of CLB was measured using TLD dosimetry in the 50 cancer breast patients. The TLD chips were placed at the four points on the each of CLBs. The patients were treated by 6MV photon beams of Oncor (physical wedge) and Compact (motorized wedge) LINAC. The TLD chips were placed on the surfaces of CLB during the medial and lateral tangent radiation fields in one of radiotherapy fraction. **Results:** The mean percent of prescription dose of the CLB surface doses on the point 1(5 cm from the middle of medial tangential field border) in the two Linac (Oncor & Compact) was significantly different. The mean of CLB surface doses of point 1 in the physical and the motorized wedge techniques were 5.78 and 7.84 percent of prescription dose of breast cancer respectively. The medial and lateral fields contribution from 7.4% surface dose of CLB were 5.8% and 1.6% respectively. **Conclusion:** In Shahid Ramezanzadeh radiotherapy center, the CLB surface dose due to breast cancer radiotherapy by the Compact machine (7.84 %) was significantly more than guide line 6% of breast cancer prescription dose ($p < 0.00$). The scattering dose was dependent on the field size and the highest CLB does was belong to the medial field beam

کلمات کلیدی:

Contralateral Breast, Radiotherapy, LINAC, Thermoluminescence Dosimetry, Secondary Cancer

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