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Thesis Title	***Assessment of early side effects of radiotherapy in breast cancer patients***			
Year	**2016**			
Abstract	**Background: Breast cancer is the commonest cancer in women In Iraq and globally. Radiation plays an essential role in the management of breast cancer. In a general radiation oncology practice, breast cancer comprises approximately 25% of total patient caseload. This makes understanding what type of toxicity to expect from radiation for breast cancer and its management of prime importance since it affects significant numbers of patients daily. Radiation induced side effects (RISE) in breast cancer patients can be divided into early (acute and subacute) and late side effects. Early radiation toxicities occur during treatment time and up to six months after treatment has finished.** **Objectives: assessment of the early side effects of adjuvant external beam radiotherapy (EBRT) in breast cancer patients.** **Patients and Methods: A cross sectional survey with analytic component conducted on 60 patients treated in the radiotherapy department of oncology teaching hospital of medical city from the first of January to the 30th of April 2016 after mastectomy (44 patients) or breast conserving surgery (BCS) (16 patients).** **Results: The most prevalent RISE were radiation dermatitis (81.6%), fatigue (70%), pain in the irradiated area (66.6%), sore throat (58.3%), nausea (41.6%), dysphagia (35%), and arm edema (28.3%). There was a significant difference between prevalence of dermatitis with different radiation doses used. Dermatitis was more prevalent with conventional fractionation (CF), than in hypofractionated radiotherapy. The prevalence of dermatitis was also more in patient treated with BCS (87.5%) than those who had mastectomy (79.5%), but this relation was not statistically significant. Fatigue was found to be related to disease stage.** **Conclusion: Much acute toxicity were developed after radiotherapy to breast cancer patients, none of them was above grade 3; however they**			

affect health related quality of life (HRQL) and should be avoided if possible.

Dermatitis was the most common acute toxicity of radiotherapy in breast cancer patients. It was related to dose fractionation. Fatigue was the 2nd common. It was correlated with disease stage.

Keywords:Breast cancer, Conventional fractionation, Hypofractionation, Radiation Dermatitis.