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abstract

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Assessment of the Secondary Effects of Radiation Therapy Treatment Experienced by Patients with Breast and Cervical Cancer at the Lagos University Teaching Hospital, Nigeria

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Introduction: Breast and cervical cancers remain major public health concerns in Nigeria, with their incidence rates rising significantly in recent years. Radiation therapy is a highly effective treatment modality for both cancers, yet it is associated with a range of secondary effects. However, in our locality, there is a paucity of data on the secondary effects experienced by breast and cervical cancer patients undergoing radiation therapy. Present study assessed the secondary effects of radiation therapy treatment experienced by patients with breast and cervical cancer at the Nigerian Sovereign Investment Authority – Lagos University Teaching Hospital Cancer Centre (NLCC), Nigeria, now Medserve_LUTH Cancer Centre, from January 2025 to June 2025.

Methodology: A prospective, cross-sectional study of 290 patients treated with radiation therapy for breast and cervical cancer was carried out. Data was collected by direct interviews of patients by the clinicians and the use of a structured proforma (questi-

onnaire) to capture demographics and treatment details.

Results: The study showed that the mean age for breast and cervical cancer patients is 52 and 56, respectively. The most predominant short-term secondary effects experienced by the patients include fatigue, dermatitis, and anorexia for both breast and cervical cancer treatment. The study also revealed that most patients presented at advanced stages (Stage III: 42% for breast cancer, 35% for cervical cancer) of the diseases. This late presentation was a recurrent pattern among married, middle-aged women predominantly engaged in trading and civil servants. Advanced radiotherapy techniques, such as Intensity Modulated Radiation Therapy (IMRT) for breast cancer and Volumetric Modulated Arc Therapy (VMAT) for cervical cancer, were predominantly used for treatment, with average doses of 42 Gy in 16 fractions for breast cancer and 50 Gy in 25 fractions for cervical cancer. Correlation analysis demonstrated a

strong positive association between disease stage and severity of side effects ($r = 0.983$ for breast; $r = 0.979$ for cervical; $p = <0.001$), indicating that patients at higher stages experienced more severe toxicities.

Conclusion: That the predominant short-term secondary effect of radiation therapy experienced by women with breast and cervical cancer is fatigue, followed by dermatitis and anorexia. The majority of the women were in their 5th and 6th decade of life and presented their condition late.

Conflict of interests: The authors declare no conflict of interests.

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