

## ABSTRACT

**Background:** Radiotherapy forms the mainstay of management in patients with cancer of the uterine cervix. It has severe adverse effects on the female genital tract leading to psychosexual dysfunction. However, minimal data exists to document the magnitude of this morbidity after radiotherapy in Kenya.

**Objective:** To determine the magnitude of psychosexual dysfunction in women treated with external beam radiotherapy for cervical cancer at Kenyatta National Hospital.

**Design:** A cross sectional descriptive study.

**Setting:** Radiotherapy unit of Kenyatta National Hospital, Nairobi.

**Method:** Women who had completed external beam radiotherapy for cervical cancer at least 3 months previously were sequentially sampled. 240 women were recruited and interviewed by use of a structured questionnaire. Vaginal examination was done to determine the vaginal lengths. The data was then analysed and presented using frequency tables.

**Main outcome measures:** These included socio demographic characteristics, vaginal length after radiotherapy, sexuality after radiotherapy and measures used to minimise radiotherapy side effects on the vaginal canal.

**Results:** The response rate was 100%. The mean age was  $49.2 \pm 11.1$  years and most patients (77%) had presented with late stage disease ( $\geq 2B$ ). 38% of the women engaged in sexual activity after radiotherapy. Women younger than 50 years, who had gone to school, were married and had sex prior to radiotherapy were more likely to engage in sex after radiotherapy,  $p < 0.05$ . Marital status and sexual activity prior to radiotherapy were the most significant determinants of sex activity after radiotherapy. However, majority of these women experienced sexual dysfunction. About half of the women (48%) felt sex

was worse overall, (66.3%) felt a subjective reduction in their vaginal canal, (62.8%) had reduced sexual desire and (60.5%) experienced dyspareunia.

All the women had stenotic vaginal canal. The mean vaginal length was  $3.99 \pm 1.42$  centimetres. Women who had longer vaginal lengths ( $> 4$  centimetres) experienced less dyspareunia and improved overall quality of sex than their counterparts ( $p < 0.05$ ).

Younger women (less than 50 years) were the more likely to have longer vaginal length ( $> 4$  centimetres) than their counterparts. However, married women and women who had sex after radiotherapy also had significantly longer vaginal length than their counterparts ( $p < 0.05$ ).

Majority (74.2%) of cervical cancer patients were not counselled on their sexuality while only (6.6%) were using other regular preventive methods to minimize radiotherapy side effects on their genital tract, apart from coitus.

Sexuality counseling did not influence the vaginal length and only younger women ( $< 50$  years) were more likely to have been counselled.

**Conclusion and Recommendations:** All women developed stenotic changes in their vaginal canal while majority suffered adverse changes in their sexuality function. However, women who engaged in sex after radiotherapy were more likely to have less stenotic changes in their genital tract. Sexuality counseling was ineffective in preventing these adverse effects. Therefore appropriate sexuality counseling and use of simple preventive methods such as regular sexual intercourse should be emphasized in order to minimize radiotherapy side effects on the genital tract.