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A DESCRIPTIVE STUDY TO ASSESS THE RADIATION INDUCED SYMPTOMS AMONG THE PATIENTS WITH GYNECOLOGICAL CANCER AFTER PELVIC IRRADIATION AT SELECTED HOSPITAL, ERODE

M.Sudhadevi* and S.Madhavi

KMCH College of Nursing, Indira Nagar, Civil Aerodrome Post, Peelamedu, Coimbatore, Tamil Nadu 641014, India.

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ABSTRACT

The study was conducted to assess the radiation induced symptoms among the patients with gynecological cancer after pelvic irradiation. Research design adopted for this study was non experimental descriptive design and the samples were selected by using non probability purposive sampling. The result of the study shows that most of them have experienced mild to moderate level of radiation induced symptoms after pelvic irradiation to till 6 months. So it indicates that the oncology nurse who works at radiation unit should take up the responsibility to minimize the radiation induced symptoms among the patients with gynecological cancer after pelvic irradiation.

INTRODUCTION

Cancer has become an important public health problem with over 8,00,000 new cases occurring every year and is one of the ten leading causes of death in India. It is estimated to be around 70 -90 per 1, 00,000 population. National cancer registry programme indicates about 50 – 60% of all cancer among in India are related to the four organs: cervix uteri, breast, corpus uteri, and ovaries [1].

More than 70,000 new cases of cervical uteri, 3-8% of ovarian, 0.5-4.8% of corpus uteri, 1-3% of vulvar cancers reported in India every year. Gynecological cancer focuses on cancers of female reproductive system including ovarian, uterine, endometrial, cervical, vulval cancer[1]. It is the fourth most common type of cancer in woman, globally affecting approximately 1 in 20 women. These cancers can be treated with surgery, pelvic radiation therapy, chemotherapy or some combination of these three [2].

Pelvic irradiation plays an important role in the treatment of women with cervical or endometrial cancer [3]. However, patients who receive pelvic radiation for gynecological malignancies may experience a unique constellation of toxicity because of the anatomic locations, combination with concurrent chemotherapy as well as potential surgical interventions. Although side effects are often categorized into acute versus late toxicities represent continuation and evolution of the same pathologic process. With increasing number of long term gynecologic cancer survivors, the prevention and alleviation of late side effects after treatment have become a priority [4-6].

Corresponding Author

M.Sudhadevi
Email:-danramsudha@gmail.com

OBJECTIVES

- To assess the level of radiation induced symptoms among the patients with gynecological cancer after pelvic irradiation at selected hospital, Erode.
- To find out the association between radiation induced symptoms after pelvic irradiation and demographic variables such as age, locality, education, occupation, relationship status, previous source of information, stage of cancer, co morbidity, No of children, No of pregnancy, No of abortion, attained Menopause and age at first intercourse among the patients with gynecological cancer, Erode [7-9].

Operational definition

Gynecologic cancers: In this study it refers to cancer of endometrium, and cervix.

Radiation Induced symptoms: This refers to vaginitis, vaginal shortening, vaginal dryness and symptoms of interstitial cystitis. The symptoms of interstitial cystitis such as increased frequency, incontinence, and painful micturition which was measured by interstitial cystitis symptom index.

Pelvic irradiation: According to this study it refers to radiotherapy to pelvis especially in case of cancer endometrium and cervix [10].

MATERIALS AND METHODS

Before starting the study, the investigator obtained formal permission letter to conduct the study from the Head of the institution and Erode Cancer Centre. After obtaining informed consent, the data were collected from the patients. Assurance was given to the subjects that anonymity of each individual and confidentiality of the information given by them would be maintained throughout the study. The radiation induced symptoms – Interstitial cystitis symptoms were measured by using standardized interstitial cystitis symptom index scale and vaginal and sexual dysfunction was measured by self administered questionnaire at 1month, 2, 4, and 6 months after pelvic irradiation. Data collected were analyzed by descriptive statistics (frequency, percentage, mean and standard deviation) and inferential statistics (Repeated measure ANOVA, and chi square test).

RESULT

The study shows that 4.8%, 8.7%, 39.4% and 29.8% of them have mild level of interstitial cystitis symptoms in 2 weeks, 1, 2 and 4 months after pelvic irradiation respectively. 4 months after pelvic irradiation 30.8% of them have moderate level of interstitial cystitis symptoms. At the end of 6 months after pelvic irradiation 32.7% of them have mild level of interstitial cystitis symptoms and 26.9% of them have moderate level of interstitial cystitis symptoms. Besides, there was an association between level of interstitial cystitis symptoms and demographic variables such as age, locality, education and stage of cancer. Univariate analysis identifies that the patients who are > 55yrs, not educated, having co morbidity, having advanced stage of cancer and from rural area have greater level of interstitial cystitis symptoms.

Regarding vaginal and sexual dysfunction, 2weeks after pelvic irradiation 67.31% of the patients have mild level of vaginal and sexual dysfunction and 32.69% of them have moderate level of vaginal and sexual dysfunction. 1 month after pelvic irradiation, 68.27% of the patients have mild level of vaginal and sexual dysfunction and 31.63% of them have moderate level of vaginal and sexual dysfunction. 2 months after pelvic irradiation 70.19% of the patients have mild level of vaginal and sexual dysfunction and 29.81% of them have moderate level of vaginal and sexual dysfunction.

4 months after pelvic irradiation 71.15% of the patients have mild level of vaginal and sexual dysfunction and 28.85% of them have moderate level of vaginal and sexual dysfunction. At the end of 6 months after pelvic irradiation 72.12% of the patients have mild level of vaginal and sexual dysfunction and 27.88% of them have moderate level of vaginal and sexual dysfunction. None of them have severe level of vaginal and sexual dysfunction. In addition, there was no association between vaginal and sexual dysfunction and demographic variables such as age, locality, occupation, relationship status, previous source of information, stage of cancer, no of children, no of pregnancy, no of abortions, menopause and age at first intercourse.

DISCUSSION

The aim of the study was to assess the radiation induced symptoms among the patients with gynaecological cancer after pelvic irradiation. The result of the present study shows that there is a progression of radiation induced symptoms such as interstitial cystitis symptoms as well as vaginal and sexual dysfunction occurs as the months goes on after pelvic irradiation. So it reveals that pelvic irradiation has detrimental effect on pelvic floor muscles and connective tissues of the vaginal wall.

Table 1. Percentage and Mean distribution of interstitial cystitis symptoms among patients with gynaecological cancer after pelvic irradiation

Assessment of Interstitial cystitis symptoms on	Mean	%
2nd week	1.90	9.5
1st month	2.34	11.7
2nd month	3.23	16.15
4th month	6.02	30.02
6th month	7.52	37.6

Table 2. Percentage and Mean distribution of vaginal and sexual dysfunction among patients with gynecological cancer after pelvic irradiation

Assessment of vaginal and sexual dysfunction on	Mean	%
2nd week	20.71	49.31%
1st month	20.23	48.17%
2nd month	20.15	47.98%
4th month	19.98	47.57%
6th month	19.69	46.88%

Table 3. Assessment of Interstitial cystitis among patients with gynaecological cancer at 2nd week, 1st month, 2nd month, 4th month and 6th month after pelvic irradiation

Assessment of Interstitial cystitis on	Grade	N	%
2nd week	None	99	95.2%
	Mild	5	4.8%
	Moderate	0	0.0%
	Severe	0	0.0%
1st month	None	96	92.3%
	Mild	8	7.7%
	Moderate	0	0.0%
	Severe	0	0.0%
2nd month	None	63	60.6%
	Mild	41	39.4%
	Moderate	0	0.0%
	Severe	0	0.0%
4th month	None	41	39.4%
	Mild	31	29.8%
	Moderate	32	30.8%
	Severe	0	0.0%
6th month	None	42	40.4%
	Mild	34	32.7%
	Moderate	28	26.9%
	Severe	0	0.0%

Table 4. Assessment of vaginal and sexual dysfunction on among patients with gynaecological cancer at 2nd week, 1st month, 2nd month, 4th month and 6th month after pelvic irradiation

Assessment of vaginal and sexual dysfunction on	Grade	N	%
2nd week	Mild	70	67.31%
	Moderate	34	32.69%
	Severe	0	0.00%
1st month	Mild	71	68.27%
	Moderate	33	31.73%
	Severe	0	0.00%
2nd month	Mild	73	70.19%

	Moderate	31	29.81%
	Severe	0	0.00%
4th month	Mild	74	71.15%
	Moderate	30	28.85%
	Severe	0	0.00%
6th month	Mild	75	72.12%
	Moderate	29	27.88%
	Severe	0	0.00%

CONCLUSION

Even though the interstitial cystitis and vaginal and sexual dysfunctions are considered as later side effects after pelvic irradiation, it starts to progress from earlier itself. So this study recommends that the oncology nurse who works among the patients with gynaecological cancer treating with pelvic irradiation should focus on radiation induced symptoms and take measures to minimize the side effects of pelvic irradiation in order to promote their quality of life.

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Nil

CONFLICT OF INTEREST

No interest

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