

## Original Article

# Post Radiotherapy Uro-gynaecological Morbidities in Cancer Cervix-Retrospective Study

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### Abstract:

**Aims & Objectives:** This study aimed to investigate the complications related to uro-genital system of patients who received radiotherapy for invasive cervical cancer. The patient selection is randomized who were evaluated in OPD Obst. Gynae. Deptt. of KYAMCH after receiving their full course of radiotherapy. 100 patients were evaluated. In this study most of the women were perimenopausal, having 2-5 children, most of them were presented with vaginal discharge & post-coital bleeding, most of them received surgical treatment followed by radiotherapy & chemotherapy. During radiotherapy most of them having no complains, some of them were suffering from frequency of micturation & dysuria. 31% patient suffered from dyspareunia, 17% vaginal stenosis, 7% vaginal discharge and 7% cystitis.

**Keyword:** -Vagina, cervix, Radiotherapy, chemotherapy.

### Introduction

The cervix is the commonest site for female genital cancer. Among women dying from malignant diseases of all kinds, the cervix is the organ primarily involved, statistics vary considerably from country to country and from race to race.

Cervical cancer is the sixth common solid cancer in American women, in Bangladesh, it is the second most common causes of cancer related morbidities and mortalities. In Bangladesh 20,000 new cases of cancer occur every year and among them 25,000 are cervical cancer cases. Cervical cancer constitutes about 22-29% of the genital tract cancer. The common symptoms of cervical cancer are: Watery per vaginal discharge with foul smell, post coital bleeding, post menopausal bleeding, inter menstrual bleeding. There are 4 stages (FIGO) of cancer cervix; up to stage- 2a is operable.

As standard treatment protocol, surgery, radiotherapy &

chemotherapy are the common options. But the role of chemotherapy is still evolving due to varieties of radiation technique is available and appropriate choice for an individual patient must be made. External mega voltage irradiation is the corner stone of modern treatment in most patients.

### Materials and Methods

Early and late radiation morbidity were evaluated retrospectively in (100) patients treated & followed up between November 2009 to December 2011 in cancer centre of KHWAJA YUNUS ALI MEDICAL COLLEGE & HOSPITAL (KYAMCH), & evaluated in OPD.

All the patients underwent standard pretreatment evaluation with history, physical examination, complete blood analysis, chemistry profile & staged clinically using FIGO classification. Majority of patients had radical hysterectomy, few patients had hysterectomy only.

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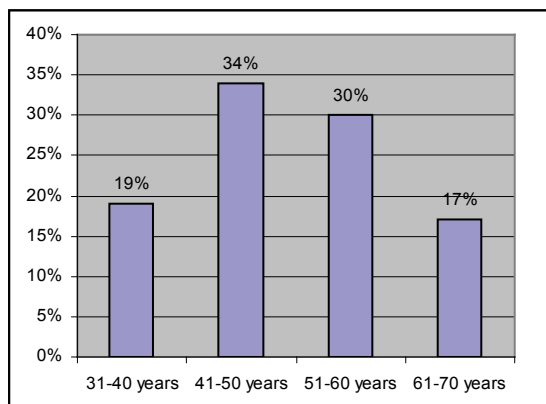
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Radiotherapy was either radical treatment, it consisted of external whole pelvic radiotherapy, after external beam radiotherapy patients were assessed for feasibility of intracavitary application. If suitable, they were treated, if not suitable for intracavitary then further external beam radiotherapy, was given. Post operative radiotherapy was delivered 4 to 6 weeks after surgery when indicated. Patients were regularly followed up after completion of radiotherapy every 3 months during the first 2 years and 6 months thereafter. Is was consisted of Medical history, physical & pelvic examination and Pap's smear of the vaginal cuff. Chest X-ray & CT Scan were also done yearly.

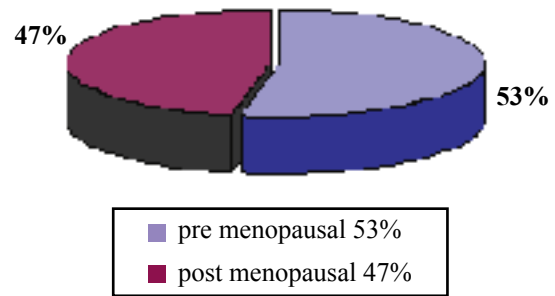
Morbidities were analyzed in the patients treated with radiotherapy and those treated with surgery and post operative radiotherapy.

**Rrsults**

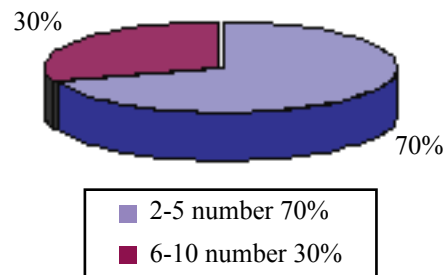
In our study 100 patient were evaluated randomly in Gynae OPD after completion of radiotherapy. The characteristic of study population were - age distribution, their menopausal status, parity, common symptoms, treatment pattern & lastly their morbidities. All these are showed in bar & pie chart.



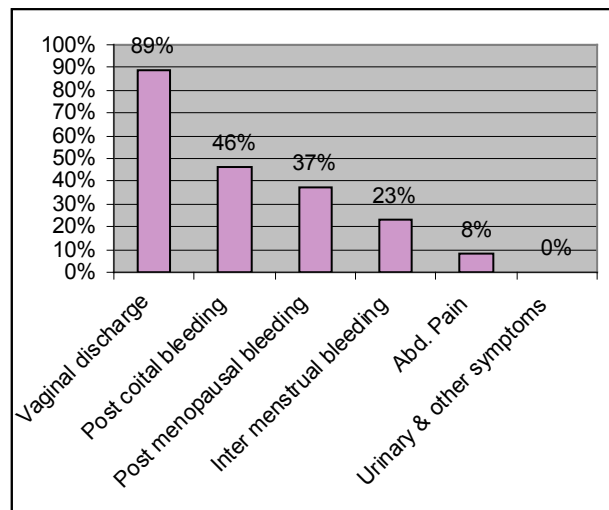
**Figuer-1:** Most of them are between the ages of 41 to 50 years 34% next between the ages of 51 to 60 years 30%, then 31-40 years 19% & 61-70 years 17%.



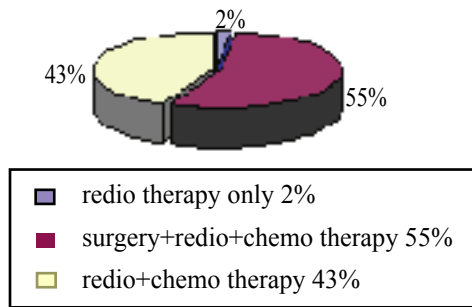
**Figuer-2:** Most of the female are pre menopausal age 53%, post menopausal 47%.



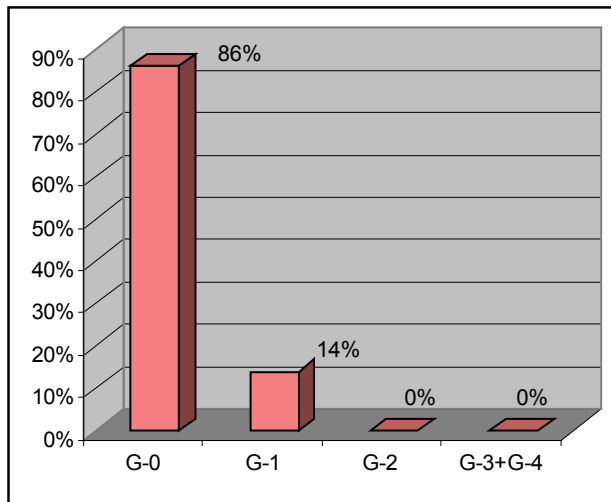
**Figuer-3:** Most of the patient, as 70% were multiparus have children between 2 to 5 in number and 30% have children between 6-10 in number.



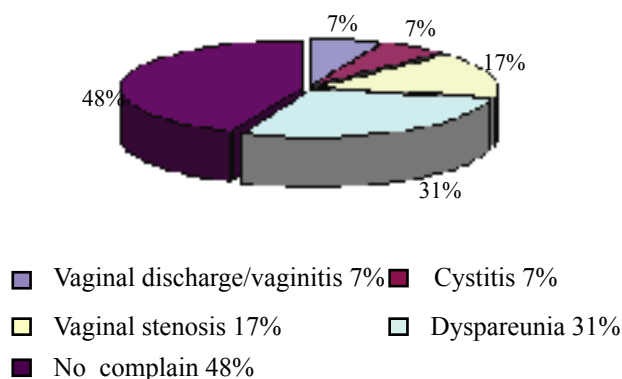
**Figure-4:** Shows 89% of the women had vaginal discharge, 46% post coital bleeding, Post menopausal bleeding 37%, 23% inter menstrual bleeding, lower abdominal pain 8%, Urinary symptom & other symptoms are nil.



**Figure-5:** Treatment pattern: most of the women 55%, treated with surgery, radiotherapy & also chemotherapy, 43% with chemotherapy and only 2% with radiotherapy.

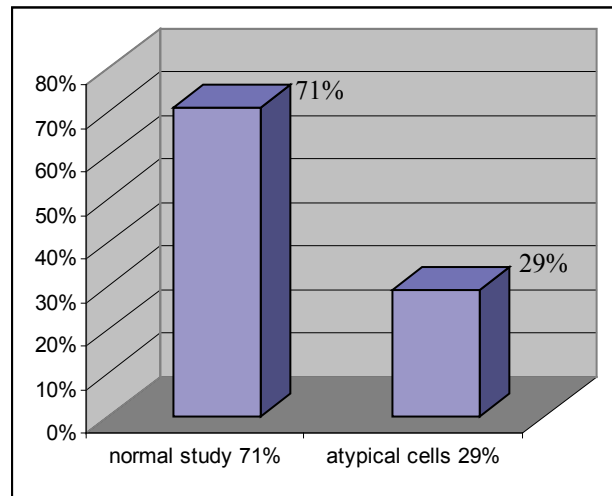


**Figure-6:** Shows acute genitourinary morbidities- G-0: that is no changes 86%  
G-1: only frequency of maturation & dysurea 14%.  
G-2 & G-3 + G-4: nil- 0%



**Figure-7:** Indicates - late morbidities that is patient suffering from some genitourinary morbidities- like 31%

dyspareunia,17% vaginal stenosis, 7% cystitis & vaginal discharge 7% but most of the patient having no complaints 48%



**Figure-8:** on pap's smear study, 71% cases were normal study & only 29% cases showed atypical cells.

### Discussion

Radiotherapy is the mainstay treatment for locally advanced carcinoma of the cervix.<sup>1, 2</sup> It is also administered as an adjuvant therapy to patients deemed at high risk for local recurrence after radical hysterectomy.<sup>3, 4</sup> Organs adjacent to the cervix, such as the ureter, bladder, Vagina and rectum, are inevitably irradiated to a certain degree. Radiation cystitis, vaginitis, vaginal stenosis & dryness causing dyspareunia and proctocolitis are often encountered during treatment but delayed complications may manifest many years after completion of therapy.

Pelvic radiation causes changes in the vagina. Both external-beam radiation and implants damage the vaginal epithelium and basal layer of the mucosa, leading to vaginal stenosis and vascular fibrosis. These factors can then lead to long-term sexual dysfunction, painful pelvic examinations, dyspareunia.<sup>5,6</sup>

Jensen et all 147 found women treated with radiation therapy had more severe sexual dysfunction at 2-year follow-up, with 85% of women reporting no interest in sex, 55% having dyspareunia, and 50% having vaginal shortening.

These problems were significant compared with the women's own pre-morbid sexual function and when compared with age-matched controls.

Comparing results between studies is problematic owing to the different treatment regimens, which may have different prescription conventions, different relative dose contributions from the external beam and intracavitary components, different external beam doses per fraction and different intracavitary dose rates. It is well established that the brachytherapy dose rate is an important parameter in modifying the risk of normal tissue injury.<sup>8,9,10</sup>

In our study acute morbidities related to radiotherapy are bladder involvement and late morbidities commonly related to genital organ.

Among the cervical cancer survivors, sexual dysfunction is an important issue as revealed by different studies as well as shown in our study must be addressed appropriately for better quality of life.

## Conclusion

Patients with cervical cancer can be treated by a combination of ERT and ICRT. However the patients should be assessed before, during and after treatment and at every defined period of follow-up using a standard and well-defined system in order to define and predict the morbidity rate.

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