BRACHYTHERAPY AND SQUAMOUS CELL CARCINOMA OF VAGINA: ONE SINGLE INSTITUTE EXPERIENCE

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Objectives:

Primary vaginal carcinoma is an uncommon malignancy. Brachytherapy (BT) places a central role in the overall treatment course. We sought to describe the utilization rate of BT and evaluate the potential survival benefit of BT over radiotherapy alone (RT) in primary squamous cell carcinoma of vagina (PSSCV).

Methods:

A retrospective analysis of Salah Azaiz Institute data base was performed analyzing women with PSSCV treated with external beam radiation (EXBR) alone and with the combination of EXBR and BT and diagnosed between 1994 and 2015.

Results:

Of the 76 PSSCV patients, 43 met inclusion criteria. The mean age was 60 years (± 14.1 years).

The mean tumor size was 5.5 cm (± 2.5 cm).

The patients was staged respectively according the FIGO classification stage I in 41.8% (18 cases), stage II in 14% (6 cases), 23.2% (10 cases), and 20% (9 cases).

The tumor was located on the posterior wall in 27.9% of cases, while it was located on the anterior wall in 16.3% of cases.

The tumor occupied more than 2/3 of the length of vagina in 55.1% of cases.

The macroscopic feature of the tumor was exophytic in 83.7% of cases while it was infiltrative in 16.3% of cases.

EXBR alone was performed in 62.8 % of patients, whereas the combination of EXBR and BT was performed in 37.2%.

The mean dose of EXBR alone was 52 Gy (± 13.9 Gy), while the mean dose of EXBR combined with BT was 57.4 Gy (± 13.4 Gy).

Median follow-up was 33.4 months. Kaplan-Meier estimated that 5-year disease free survival (DFS) and overall survival (OS) was 86% and 48.8 %, respectively. (Figure 1&2). We found that patients who underwent the combination of EXBR and BT had better OS (81.2% Vs 29.6%) than EXBR alone ($P = 0.000063$), but the DFS was better on patients who underwent EXBR alone than who underwent a combination of EXBR and BT the and (80% Vs 66.6%), this results wasn't statically significant ($p = 0.505$).

Factors associated with best OS include size < 4 cm, tumor site on one wall of the vagina, histological grade 1, RT dose > 60 Gy, the absence of tumor recurrence. Only exophytic growth was correlated with better DFS.

Figure 1: The 5 years disease free survival

Figure 2: The 5 years overall survival

Conclusion:

The combination of EXBR and BT seems to be the best model of radiotherapy for PSSCV.