Title : A Comparison between Intracavitary Brachytherapy and Interstitial Brachytherapy in Carcinoma Cervix (Stage IIB and Stage IIIB) - Prospective Randomized Study

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Asbstract :

Abstract: Objective: In locally advanced cervical cancer, the management consists of external beam radiotherapy and brachytherapy. The impact of intracavitary brachytherapy versus interstitial brachytherapy on local tumor control, survival and complications were prospectively investigated in this study. Methods: A total of 60 patients with stage IIB, IIIB cervical cancer were treated using a combination of Teletherapy and Brachytherapy at our institution. Patients were similar with respect to age, FIGO stage, tumor size, histology subtype in both groups. Patients were randomized to receive external beam irradiation followed by either intracavitary or interstitial irradiation. They also received concurrent chemotherapy -Cisplatin (100mg/sq.mtr, three weekly- 2 cycles). Patients treated with interstitial therapy received a mean external dose of 4600cGY and interstitial irradiation HDR-600cGy * 3 fractions using a transperineal Syed-Neblett template with mean tumor dose of 2900cGY. Patients treated with intracavitary therapy received a mean external dose of 4600cGy and mean cumulative dose of 2700cGY to point A using Fletcher-Suit HDR applicators- 600cGy*3 fractions.
Results: The local control rates were 70% for interstitial Brachytherapy and 80% for intracavitary Brachytherapy. The complication rates were 33% for interstitial Brachytherapy of which 10% was bladder and 23.33% was rectum. In patients who received intracavitary Brachytherapy, the complication rates were 13.33% of which 6.66% was bladder and 6.66% was rectum. All complications were managed conservatively. Conclusion: More relapses are seen in patients with stage IIB, IIIB treated with interstitial
irradiation,compared to patients treated by intracavitary Brachytherapy. The bladder and rectal complication rates are higher in patients treated with interstitial irradiation,compared to that of patients treated by intracavitary Brachytherapy.