

cent. There was no statistically significant difference between these groups. However, if only G3 and G4 complications are taken into consideration, statistically significant complications are seen in patients in whom the filter was used.

## CONCLUSIONS

1. Late postirradiation sequelae in patients with cervical cancer were most frequently located in the gastrointestinal and urinary system.
2. Statistically significant difference in occurrence of late complications in relation to selection of machine (Cathetron of Selectron HDR) was not provided in this paper.
3. Percentage of complications of grade G1 is the highest.
4. Percentage of late complications of grade I (G1) located on urinary system is higher in relation to percentage of the ones in gastrointestinal system.
5. There is no statistically significant difference in occurrence of late complications in relation to usage of central lead shield.
6. Higher TDFf value - higher complication percentage of higher grade.
7. The higher TDFf - the higher percentage of late complications - lower rate of recurrences.
8. The French-Italian glossary is useful and applicable especially in making comparisons in clinical practice (4).
9. Our results correspond to the world results.

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# Complications and unfavorable effects of radiotherapy in cervical cancer

**KEYWORDS:** Cervical cancer; Brachytherapy; Radiotherapy

Radiotherapy is used for all stages of cervical cancer. When the surgery is contraindicated, it is applied as the brachytherapy in microinvasive cervical cancer. Postoperatively, in FIGO stages Ib and IIa, it is applied as the external-beam irradiation and intracavitary brachytherapy. The radical combined radiation therapy is used in advanced carcinoma, from IIb to IVa stages. Radiotherapy is applied together with chemotherapy as the sandwich therapy for the solitary metastases in IVb stadium. The basic aim of this report is the description and analysis of the complications in cervical cancer radiation therapy. From 1995 through 2001, 77 patients with cervical cancer were treated and received follow-up care at the oncology department of the Medical Center in Gornji Milanovac. Twelve patients were treated only with surgery, 24 with surgery and further radiation, and 41 with radical radiation therapy. Most patients were in FIGO I stage. The most dominant carcinoma was squamocellular (>90%). The average age of the patients was 51.2 years. Median follow-up was 25 months (range 2-71). Median survival for the whole group was 29 months (range 6-72). Seven patients had recurrence after radiation (10.8%), and in 6 patients (9.3%) metastases occurred. The most distinctive late postirradiation complications were the rectal dysfunction and vaginal strictures - 6.1%, cystitis, ureteral strictures and consequential hydronephrosis, as well as the appearance of ileus - 4.6%. According to the number, weight and kind, postirradiation complications were in the expected limits. The expertise of the radiotherapist is vital for the destruction of the tumor tissue and preservation of the vital organs from the damage.



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## MDR brachytherapy of cervical cancer: A single center experiences

**KEYWORDS:** Cervix carcinoma; MDR; Intracavitary brachytherapy; Radiotherapy

Selectron MDR is an automatic afterloader with the radioactive sources Cs-137 in the shape of discs - pellets, the diameter being 2.5 mm, with a separate activity of 4 mCi and a total activity of 71 GBq (1.92 Ci). Together with the device, sets of applicators for the treatment of the cervix, uterus and vagina carcinoma are also supplied. After finishing of the computer planning, the radioactive pellets are transported to previously inserted applicators. They take place in the previously planned positions within the applicators, where the empty spaces are filled with the empty pellets. The technique of the treatment consists of two applications with the time span of 12 to 14 days, where 2550 cGy per fraction is being applied at the Manchester points A-on the left and A-on the right, with the intensity of the dose of 250 cGy/h. The treatment is completed by the transcutaneous radiological therapy over two opposite parallel fields, with and without the central protection, where the dose of 50 Gy in 30 fractions is applied. The analysis takes into account patients treated between 1993-1997. A total number of patients is 422 women. The paper shows the rest tumours and relapses (3.9% rest tumours and 16.9% relapses), the number of complications according to the stages with non-operated patients, the number of women with early and late complications and separately it implicates the total number of early and late complications (the percentage of women with late complications is 41.5%; the total percentage of late complications is 56.9%).