

## **HYPERFRACTIONATION RADIOTHERAPY IN THE GYNECOLOGICAL CANCERS: LITERATURE REVIEW AND PERSONAL EXPERIENCE**

Jian-Sheng Jan, Ching-Shyiong Chang, Jin-Ching Lin,  
Yih-Chyang Weng, and Jong-Shuh Gau

*Department of radiation oncology, veterans general hospital taichung*

That the radiotherapy with hyperfractionation technique can improve the local tumor control rate has been reported in lots of literature in therapy for advanced head and neck cancers and other cancers but little in gynecological cancers. In 1992 we treated 2 cases with carcinoma of the uterine cervix by two fractions per day. Case I had recurrent tumor in the vaginal cuff and case II had FIGO stage IIB disease. Both cases received hyperfractionation with 1.8 Gy from AP and PA portals in the morning and 1.2 Gy from bilateral opposing portals in the afternoon at interval of at least 6 hours. We delivered up to 45 Gy in 15 days, rested for 1-2 weeks, and then changed the dose as in the conventional radiotherapy with 2 Gy per day. Case I totally received 72.6 Gy in 43 fractions in 59 days. Case II received 65 Gy in 40 fractions in 45 days. Case II also received concomitant chemotherapy with 30 mg cisplatin for 3 days in the second week of radiotherapy as a radiation sensitizer and intracavitary brachytherapy to the uterine cavity with 500 cGy to point A for each treatment and totally for 5 treatments after external radiotherapy. After radiotherapy both cases developed moderate to severe acute reactions including diarrhea, tenesmus and low white count in 2 weeks of the hyperfractionation treatment. But the acute reactions were soon recovered after a rest of 1-2 weeks. In our follow-up as of July 1993, there was no late complication and the cases were with good local control and without distant metastasis up to 17 months. The literature review demonstrated only 2 reports regarding hyperfractionation of the gynecological cancers had been reported. The local tumor control in these 2 reports did not show any significant improvement and the increased acute normal tissue reactions showed in one report. In conclusion, hyperfractionation technique for gynecological cancers may induce more acute reactions but may not increase the local control rate, so, it is not frequently applied in the therapy for gynecological cancers.