Summary

Late Toxicity of Radiotherapy in Prostate Cancer - Clinical Aspects.

(Influence of Hormonal Therapy on Chronic Gastrointestinal Toxicity in Prostate Cancer Patients Treated with Intensity Modulated Radiotherapy)

Besides dose escalation, hormonal therapy is the second factor that can prolong survival in men with localized prostate cancer. The aim of our study was to investigate if hormonal ablation influence the incidence of chronic gastrointestinal (GI) and genitourinary (GU) toxicity in men treated with radiotherapy.

Materials and methods: We evaluated data of chronic toxicity in 320 men irradiated by 3D-CRT technique with a dose of 70 or 74 Gy and 233 men irradiated by IMRT with a dose of 78 or 82 Gy. Toxicity was scored using RTOG and FC-LENT criteria.

Results: There was no difference in chronic GI or GU toxicity if we evaluated all the patients together. Also no significant difference was observed in the 3D-CRT group, we have only noticed a tendency to higher incidence of GI and lower incidence of GU toxicity in men with hormonal therapy. In the IMRT group, there was no difference in GI toxicity, but GU toxicity G3-4 was significantly higher in men with hormonal therapy (p = 0.045). If we evaluated separately neoadjuvant and adjuvant hormonal treatment, there were lower GU toxicity in neoadjuvant and higher GU toxicity in adjuvant therapy in 3D-CRT group (p = 0.015 resp. 0.018 for G2-4 resp. G3-4 GU toxicity, respectively). In IMRT group and in all the pacients together there was no significant difference.

Conclusion: With the use of hormonal ablation we do not increase the incidence of chronic GI toxicity in men irradiated with 3D-CRT technique or IMRT in escalated doses. Higher incidence of chronic GU toxicity in IMRT with hormonal treatment is compensated enough by decrease of total risk of GU toxicity (G3 toxicity 9.4 % vs. 19.4 % in IMRT vs. 3D-CRT group). For evaluation of adjuvant hormonal therapy, the number of patients in our study is not sufficient.