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Letter to the Editor

Systemic (Hemibody) Irradiation in Small Cell Lung Cancer

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In a recent article in this Journal (Vol. 25, No. 6, pp. 933–937) the authors compared, by a randomized trial on patients with 'extensive disease' (ED) of small cell lung cancer (SCLC), an 18-month regimen of combination chemotherapy (VAM/POCC) versus sequential irradiation of the upper and lower hemibody (SHBI) with one single high dose. They found significantly longer survival of the chemotherapy-treated patients and stated 'in conclusion, high dose SHBI cannot be recommended as a standard therapy for extensive SCLC'. This statement is not correct and may discredit an important developing method. Therefore it needs interpretation.

High dose sequential hemibody irradiation, a new method of systemic tumor therapy, is not restricted to, or identical with, the 'one-strike' technique used by the authors. Thus it would be correct to say that *single* high dose SHBI cannot be recommended as a standard therapy for extensive SCLC. But, the point is, nobody made this recommendation. On the contrary, already in 1983 Urtasun *et al.* [1] demonstrated, by a randomized trial, that the one-strike technique—applied to SCLC—with patients having ED gave worse survival results than a modern multi-drug regime, but on the other hand, with patients having limited disease (LD), exactly the same median and 2-year survival rates were obtained by both systemic treatments. Likewise in our own investigations, we found that LD patients irradiated by the one-strike technique gained the same mean and median survival time (13–15 months and 10.5 months respectively) as reported in most statistics from modern chemotherapy treatments [2–4], but with ED patients, no prolongation of survival was obtained (4–6 months).

Thus it was evident that the SHBI method works, but the technique has to be adapted to the volume and, above all, the proliferation kinetics of the tumor type treated, so as to reduce cell number sufficiently. Therefore, some proposals for a suitable technique to treat advanced and rapidly proliferating tumors were made, i.e. in first line very few repeated hemibody irradiations in an adequate time–dose schedule over some months, combined with very low dose doxorubicin once before irradiation to inhibit intracellular repair mechanisms [4]. In that way the two important advantages of SHBI would almost be preserved:

— nearly no impairment of quality of life (nausea and vomiting, if any, limited to 24 h after every SHBI; few ambulatory treatments);
— comparatively low costs (one fraction of irradiation is estimated at about 70–90 DM, physicists' planning included) [5, 6].

In contrast, multi-drug chemotherapy, the systemic tumor treatment of today, burdens all patients with massive long-lasting or periodically recurring nausea and vomiting during treatment (~ 18 months in the article mentioned, i.e. for the remaining life span of most of the patients) and it is very costly (one cycle VAM 1100 DM, one cycle POCC 500 DM) [7]. For these reasons it seems to be more important and more promising to develop the SHBI method, which is most convenient to patients, by techniques to treat rapidly proliferating and advanced tumors, than to repeat a trial with the one-strike technique, which is known to be incompatible with *extensive* SCLC.

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