

Palliative PDR brachytherapy in treatment of recurrent larynx cancer

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Purpose: A large majority of patients with recurrences of larynx cancer are disqualified from radical treatment and constitute a group of bad prognosis. Some of them can be qualified for salvage surgery and treated mostly with a palliative intent. In some cases brachytherapy can be a treatment of choice after previously applied external beam radiotherapy. The paper is to present results of PDR interstitial brachytherapy (PDR-BT) in a described group of patients.

Material and methods: Thirty-eight patients with recurrent larynx cancer were treated with PDR-BT since October 2000 till September 2005 in Greatpoland Cancer Center. The age of patients ranged from 41 to 79 years, average 59.5 years. The group consisted of 5 women (13.2%) and 33 men (86.8%). Clinical locations of tumor before PDR-BT were: metastasis in locoregional lymph node system ($n = 22$, 57.9%), recurrence in tracheostomy area ($n = 14$, 36.8%) and infiltration of surrounded organs ($n = 2$, 5.3%). In 37 cases squamous cell carcinoma, in one case – adenocarcinoma were diagnosed. Twenty-nine patients were previously both operated and irradiated (76.3%), 3 were irradiated (7.9%) and 6 were operated (15.8%) as a single modalities. Primary lesions were irradiated most frequently with total dose of 70 Gy. Median time between primary tumor and its recurrent appearance was 15.5 months (min. 3 and max. 48 months) and it was longer than 12 months in 18 cases. Recurrences were treated up to total dose of 20 Gy, most commonly with a single fraction of 20 Gy in 25 pulses by 0.8 Gy hourly. In 5 cases PDR fraction was repeated in view of small size of a tumor and relative good response after first fraction. In 6 cases hyperthermia was added. The assessment of the results was performed in 1st months after completion of the treatment and then after 3, 6 and 12 months. Tolerance of the treatment and acute complications are discussed.

Results: Median survival time carried out 5.3 months (1-8 months). In 1st month after the end of the treatment complete remission (CR) was found in 3 (%), partial remission (PR) in 25 (%) and lack of remission (NR) in

10 (16.7%) cases, respectively. In 3rd and 6th months remission (CR + PR) was observed in (%) and (%) patients, respectively. In 14 cases superficial necrosis was observed in first and third months of observation.

Conclusions:

1. PDR brachytherapy can be a treatment of choice in patients previously irradiated with external beam radiotherapy and/or surgery.
2. It appears to be, that in case of infiltrating the tracheostomy area PDR brachytherapy can prolong overall survival time.
3. To confirm the above a comparative investigation of a larger group of patients is needed.