
RADIOTHERAPY COMBINED WITH
HYPERTHERMIA IN THE TREATMENT
OF 31 PATIENTS WITH CHEST
MALIGNANT TUMORS

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PURPOSE:

To evaluate the clinical effects of radiotherapy combined with hyperthermia on advanced chest malignant tumors.

MATERIALS AND METHODS:

53 patients with chest malignant tumors had been treated by radiotherapy combined with hyperthermia during the period of January 1991 to January 1999. Among all patients, 31 having complete records and follow up studies which is reported in this presentation, and 20 of them with esophageal cancers, 10 with lung cancers and 1 with mediastinal tumor. Radiotherapy was administered to all patients, the total dosage was 50-70Gy. RF-8 Thermoatron was applied for hyperthermia through external therapy, once or twice a week. The temperature was measured intraluminally of the esophagus in 29 patients and other 2 were intratumorous measurement. The average intraluminal temperature was 39°C - 42°C corresponding to intratumorous temperature of 41°C - 44°C, valuable time was 16-52 minutes. The patients were divided into two groups according to the temperature: high degree group (HDG) and low degree group (LDG).

RESULTS:

The tumor regression rate, complete regression, >1/2 regression, <1/2 regression and no change in patients with HDG and LDG of esophageal cancer were 33% and 25%, 25% and 25%, 33% and 50%, 8% and 25% respectively. The 1-year and 3-year survival rate of esophageal cancer in HDG and LDG were 50% and 37%, 16% and 0 respectively. The causes of death in patients with HDG and LDG were recurrence/uncontrolled, remote metastasis and other causes, and their death rates were 63% and 75%, 0 and 25% and 36% respectively. The treatment results in patients with HDG and LDG of lung cancers: PR and NC were 66% and 40%, 33% and 60% respectively.

CONCLUSION:

The rather good treatment results of radiotherapy combined with hyperthermia in patients with advanced chest malignancies will be achieved with the average temperature over 42°C and time lasts for more than 40 minutes.