

DOSE HOMOGENEITY IN THE GROUP OF 15 PATIENTS UNDERGOING FRACTIONATED TOTAL BODY IRRADIATION

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Methods

Fractionated total body irradiation (FTBI) before bone marrow transplantation (BMT) was performed in 15 patients with different proliferative diseases.

Common regimen of 12 Gy in 8 fractions (four days) was applied with the reduction of dose to lungs to 9.4 Gy.

Results

Midline dose discrepancies ranged from -15.9% to +9.9% and exceeded $\pm 10\%$ of prescribed dose in one patient. Outside midline dose discrepancies ranged from -16.5% to

+19.8% and exceeded $\pm 10\%$ of prescribed dose in six patients.

Dose determination error was estimated for between 2.8% and 5% depending on the body part.

Conclusions

Estimated error of the dose determination increased dose deviations from prescribed values from between -1.6% and +4.8% to between -5.2% and +9.3% in midline and from -8.4% and +19.8% to between -12.0% and +24.8% across transverses.