1810P  Elective nodal irradiation as adjuvant radiotherapy for advanced thymomas and thymic carcinomas

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Background: Elective nodal irradiation (ENI) targeting the entire mediastinal and supraclavicular regions is not routinely recommended as adjuvant treatment for thymomas due to the low rate of lymphogenous metastasis. Also, it is not widely used for thymic carcinomas since the majority of nodal disease metastasized to anterior mediastinal lymph nodes. However, there are little clinical data directly comparing the local radiation therapy (LRT) targeting the tumor bed and anterior mediastinal areas only and ENI for thymomas. We evaluated the clinical outcome of patients with stage III–IV thymomas (Ts) or stage II–IV thymic carcinomas (TCs) treated with complete thymectomy and LRT or ENI.

Methods: Data from 47 patients diagnosed with Ts or TCs and treated with surgery and adjuvant RT from May 2002 to May 2015 were analyzed. The standard RT dose was 50.4 Gy in 25 fractions; patients with a positive resection margin received a further 4–10 Gy. Survival outcomes determined at 5 years included local recurrence-free survival (LRFS), regional recurrence-free survival (RRFS), distant metastasis-free survival (DMFS), and overall survival (OS).

Results: Five year LRFS was similar in both groups (LRT, 94.7% vs ENI, 96.2%; p = 0.849). Significant differences were seen in 5 year RRFS (LRT, 55.1% vs ENI, 83.7%; p = 0.006); however, tumor size was seen to be a significant factor (<7 cm, 95.2% vs ≥ 7 cm, 48.9%; p = 0.000) and the LRT group contained a greater proportion of patients with ≥7 cm tumors (70% vs 33%). Multivariate analysis demonstrated that tumor size was the only significant prognostic factor (p = 0.000). No differences in 5 year OS were seen (LRT, 91.7% vs ENI, 100%; p = 0.106).

Conclusions: ENI showed no additional benefit in reducing recurrence or improving survival. LRT can, therefore, be considered sufficient to achieve excellent patient outcomes.

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