

The diagnostic, treatment and follow-up features of childhood thyroid malignancies-A preliminary study

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Background

Thyroid cancer is a very rare malignancy of childhood. Approximately they account for 1.5% of all cancers before 15 years of age. In our country, this rate is %0.4 before 20 years of age.

Aims and Objectives

To analyse the clinical features and treatment results of children with thyroid malignancy in Turkey

Methods

In this multicentric and retrospective study the demographic and clinical characteristics of 124 children being followed-up for thyroid malignancies from 18 centers between 1991 and 2015 were recorded and analyzed. Statistical analyses were performed using the SPSS software version 15.

Results

The age at diagnosis was 12.9 ± 4.3 years and female/male ratio was $84/40=2.1$. There was a family history of thyroid disease in 41 cases and thyroid cancer in 9 cases. In the first application, cervical mass in 63 cases, thyroid nodule in 34 cases, and both nodule and mass in 14 cases were found. The results of cases that underwent to fine needle aspiration biopsy were benign in 7 cases, suspected follicular neoplasm in 17 cases, suspected malignancy in 32 cases, and certain malignancy in 36 cases. Fourteen (11.3%) cases with disease had distant organ metastasis (13 with lung metastasis). Total thyroidectomy in 110 cases, near total in 5 cases, central compartment dissection in 20 cases, lobectomy in 8 cases and total neck dissection in 18 cases were performed. Pathological examination revealed papillary carcinoma in 94 cases, follicular carcinoma in 14 cases, poorly differentiated carcinoma in 2 cases, medullary carcinoma in 9 cases. Radioactive iodine ablation therapy was applied as low dose in 31% and high dose in 63% of the patients. Recurrence was observed in 14 patients. Recurrence was observed in 14 patients and mean event-free and survival times were 3.3 ± 2.3 and 4.07 ± 3.5 years respectively.

Conclusions

The diagnostic, treatment and follow-up features of Turkish childhood thyroid malignancies were presented in a large multicenter cohort. These results are expected to contribute to evaluation, follow-up and treatment of these patients.