Other Malignancies accompanying differentiated thyroid cancer in Turkish Cypriots: A single center study

Sebnem Aydin(1), Umut Mousa(2), Hasan Sav(2), Osman Koseoglu(3)
1: B Nalbantoglu Hospital Department of Nuclear Medicine, Nicosia, Cyprus
2: B Nalbantoglu Hospital Department of Endocrinology and Metabolism, Nicosia, Cyprus

INTRODUCTION
The aim of this study was to determine the frequency and types of accompanying malignancies in Turkish subjects with differentiated thyroid cancer (DTC) residing in the northern region of Cyprus.

METHODS
We analyzed 567 subjects with a diagnosis of DTC in the departments of Endocrinology and Nuclear Medicine.

RESULTS
Out of the 567 subjects, 448 (79%) were female and 119 (21%) were male. A total of 17 subjects (2.9%) had an accompanying second malignancy other than DTC. Sixteen were female (94.2%) and 1 was male (5.8%). The mean age was 46.3 years for subjects with DTC being the only malignancy and 54.76 years for those with accompanying malignancies (p<0.05). Out of these 17 subjects 14 had Classical Papillary thyroid cancer (PTC), 2 had PTC follicular variant and 1 had Follicular thyroid cancer. All subjects received radioactive iodine for remnant ablation. The secondary malignancies were breast cancer in 9 subjects (52.9%), endometrium cancer in 2 subjects (11.7%) and acute lymphoblastic leukemia, Hodgkin Lymphoma, lung cancer, malignant melanoma and gastrointestinal stromal tumour in one subject each. In 11 subject’s DTC developed secondarily, in 5 subjects DTC developed first and in 1 subject DTC and the other malignancy developed synchronously.

CONCLUSIONS
The rate of accompanying malignancies in DTC was 2.9%. Classical PTC was the most frequent tumor type accompanying other malignancies (82.3%). DTC was observed 4 times higher in female subjects compared to male subjects. The role of gender was higher in those with accompanying malignancies. The most frequently observed accompanying malignancy was breast cancer leading by far. Only 5 subjects had developed a malignancy after the diagnosis of DTC and 12 subjects had a diagnosed malignancy before DTC. Thus we believe the role of RAI remnant ablation for secondary malignancy development is none or minimal.