Management of thyroid cancer in outpatient practice

Lina Zabuliene 1,2, Ruta Einkyte3, Jurgita Urboniene 4
1Clinics of Rheumatology, Traumatology - Orthopedics and Reconstructive Surgery, Faculty of Medicine, Vilnius University, Vilnius, Lithuania; 2Antakalnis outpatient clinic, Vilnius, Lithuania; 3Faculty of Medicine, Vilnius University, Vilnius, Lithuania; 4Infectious Diseases and Tuberculosis Hospital, Vilnius University hospital Santariskiu Clinics, Vilnius, Lithuania; 5Karolinska University outpatient clinic, Vilnius, Lithuania.

INTRODUCTION
Thyroid cancer constitutes 1% of all malignancies worldwide and is heterogeneous in terms of histology, clinical presentation, treatment response and prognosis. The annual incidence of thyroid cancer varies considerably by geographic area, age and sex [1]. The incidence of thyroid cancer is increasing over time in some European countries, USA and Canada. The increase in thyroid cancer incidence in Lithuania, observed over the last 20 years, has raised public concern about its association with the Chernobyl nuclear power plant accident in 1986 [2]. It seems that the increase in thyroid cancer incidence can be attributed mainly to the changes in the management of non- palpable thyroid nodules with the growing application of ultrasound-guided fine needle aspiration biopsy in clinical practice. Differentiated thyroid cancer accounts for most thyroid cancers and is characterized by an indolent tumour and a good prognosis. Follow-up and adequate treatment of patients with thyroid cancer is important in everyday routine practice. In the presence of persistent or metastatic disease, an undetectable serum stimulating hormone (TSH) (<0.1 mIU/l) should be maintained during follow-up. In patients free of disease, regardless of their initial risk class, levothyroxine therapy may be shifted from suppressive to replacement [1, 3–5].

OBJECTIVE
The aim of the study was to evaluate the peculiarities of clinical and pathologic characteristics of patients with thyroid cancer, and their management after surgery.

RESULTS
Mean patients’ age was 57.24±16.45 years (87.1% female). Mean age at surgery was 49.04±15.56 years. 46.8% patients were 41–60 years old at the time of surgery (Figure 1). Mean body mass index was 27.38±7.27 kg/m². 48.1% of patients have had normal weight and 38.3% of patients were obese.

22.9% patients had capsular invasion, 14.0% – vascular invasion, 19.2% – lymph node metastases. Patients with thyroid cancer with vascular invasion were older than patients with thyroid cancer without vascular invasion (37.62±15.08 vs 49.30±15.00 years, p=0.011). Mean TSH before surgery was 2.01±1.87 mIU/l. Neither the presence of extra thyroidal extension, nor vascular invasion, nor cancer stage was associated with TSH levels. Total thyroidectomy was performed in 90.5% of patients and hemithyroidectomy in 9.5%. Radioiodine was administered to 94 patients. Patients have been followed up for 6.50±5.74 years (range 0–26). Mean daily dose of levothyroxine was 133.81±35.59 mcg/1.85±0.56 mcg/kgkeeping TSH suppression at the level of 0.4±1.65 mIU/l (range 0.3–6.3). TSH level < 0.1 mIU/l was achieved in 31.8% of patients with thyroid cancer with extra thyroid extension, TSH level < 0.5 mIU/l was achieved in 75% of patients without any extension and free of disease.

CONCLUSIONS
Most frequently thyroid cancer is diagnosed in 41–60 years’ women and presents as multinodular goitre, and papillary carcinoma. Long-term TSH suppression after thyroid cancer surgery is kept in conformity with recommendations.

REFERENCES