Thyroid cancer presentation in children is different than in young adults

L.Cannavò [a], M. G. Wasniewska[a], G. Zirilli[a], M. A. Violi[b], F. Vermiglio[b], Filippo De Luca [a]

Department of Pediatrics [a], Department of Endocrinology [b] , University of Messina, Italy

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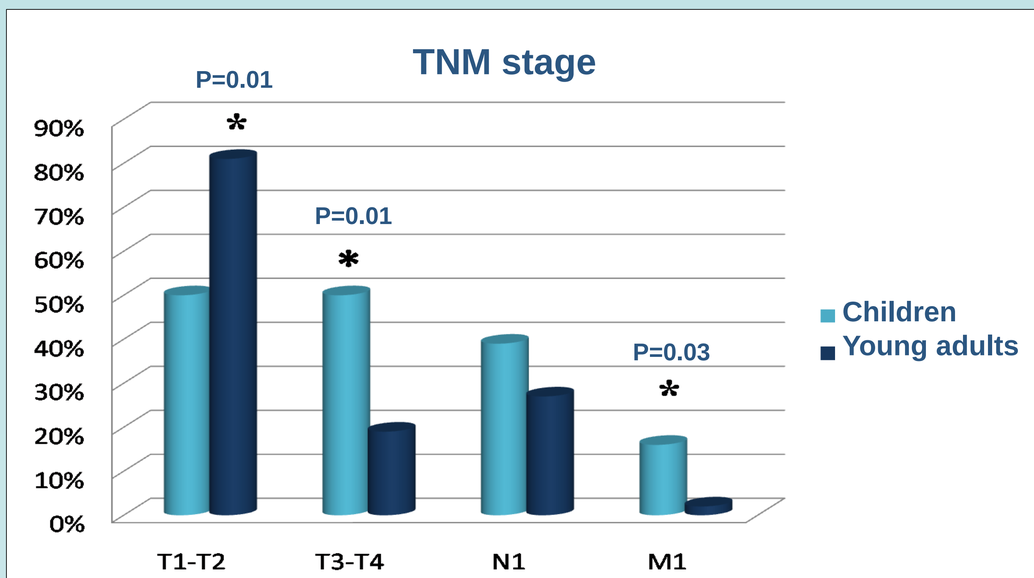
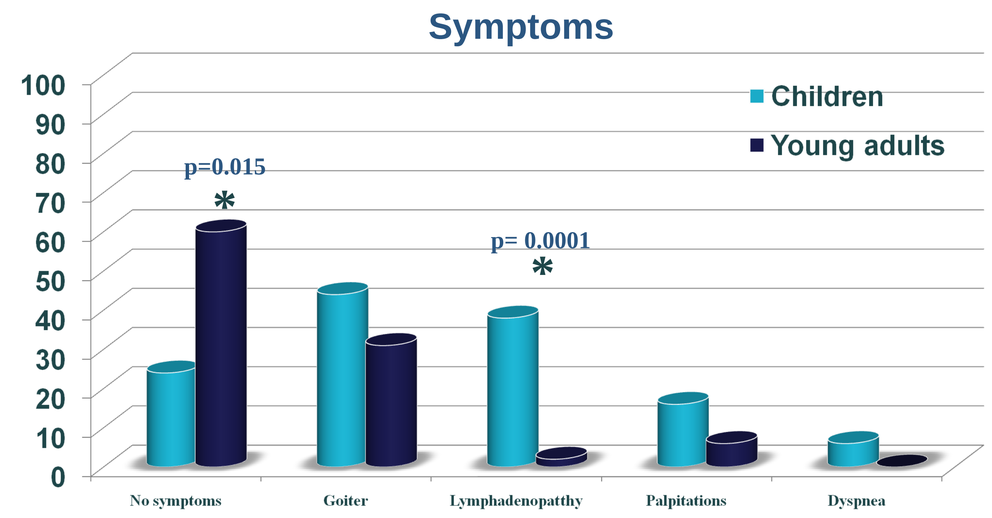
Objectives:

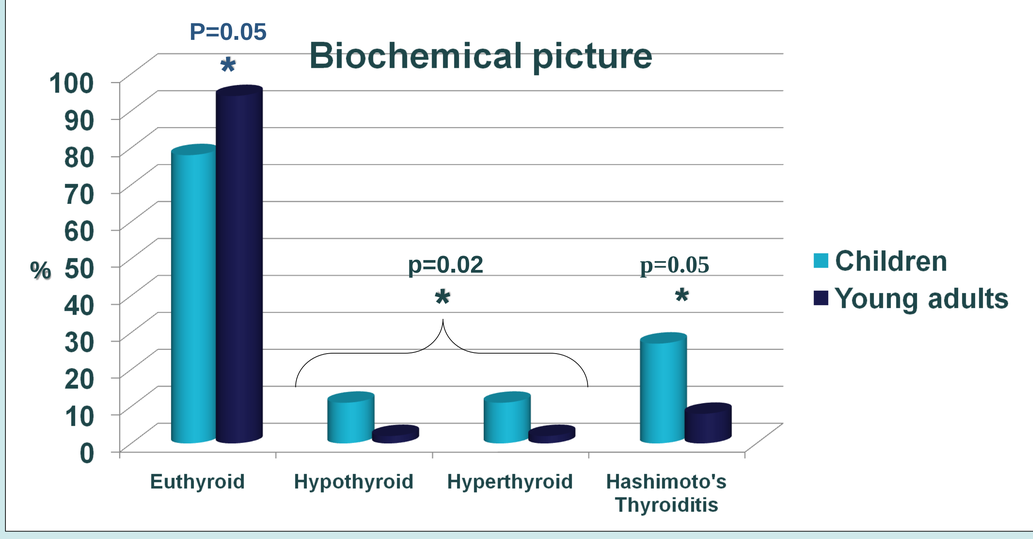
Background: Differentiated thyroid cancer (DTC) accounts for 1.5-3% of all tumors in childhood.. DTC in pediatric age might have peculiar course and prognosis.
Aim: To compare clinical, biochemical and ultrasound (US) features at diagnosis, histological grading and outcome in two groups of children and young adults with DTC.

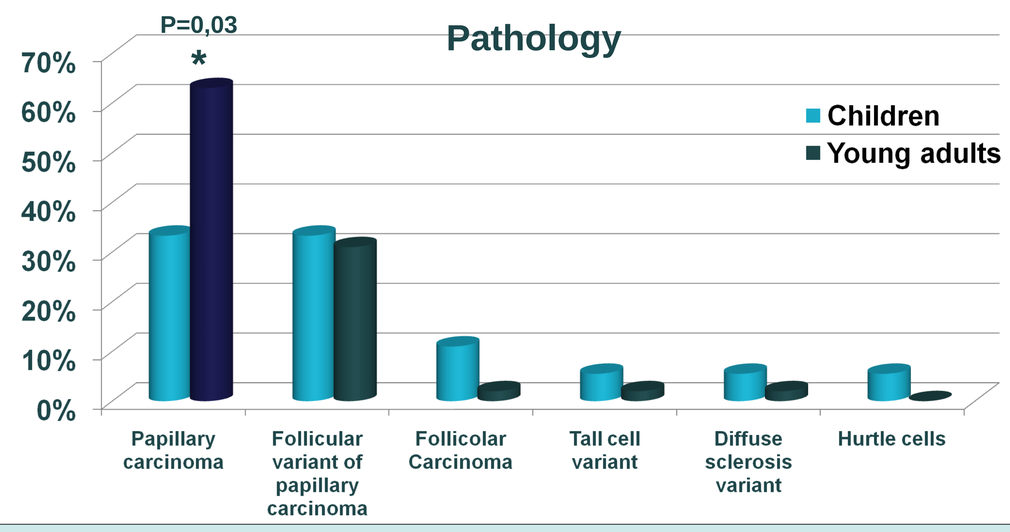
Methods:

Clinical, biochemical and imaging characteristics of 63 patients with DTC, diagnosed between 1999 and 2014 in our hospital, were retrospectively evaluated. Patients were divided in 2 groups according to age at DTC diagnosis: group A including 18 patients aged ≤18 years (mean age 15.4 ± 2.8); group B including 45 patients aged between 19 and 30 years (mean age 25.9 ± 2.7). All patients underwent both surgery and radioactive iodine therapy. Follow-up period was 6.7±3.3 years for group A patients and 5.2±3.2 years for those in group B (p>0.05).









Results:

1. Tumor size (p<0.01) and metastasis rates (p<0.03) at diagnosis were higher in group A.
2. The severity of lymph node involvement, as assessed by clinical and US evaluations, was higher in group A (p=0.045).
3. Association with Hashimoto's thyroiditis (HT) and thyroid dysfunction biochemical signs were more frequent in group A (p=0.045 and p=0.02 respectively).
4. Tumor recurrence rate and free survival rate were similar in the two groups.

Conclusions:

DTC in children presents with a clinical and biochemical picture which differs from the one observed at presentation in young adults, due to following findings:

1. More frequent association with HT;
2. More severe lymph node involvement;
3. More frequent thyroid function biochemical alterations.

References:

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Laura Cannavò
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