neoplasm (FN/SFN), suspicious for malignancy (SM), and malignant were searched. **Results:** A total of 130 patients presented with thyroid nodules. Female male ratio was 1,95:1. The youngest patient was 68 months old. At admission there was no goiter in 71.5% of the patients on physical examination. Of all patients 36% of them underwent fine needle aspiration biopsy and 8 of the 76 patients who underwent biopsy were diagnosed with papillary thyroid cancer. One patient diagnosed with follicular thyroid cancer Patients that diagnosed cancer, 4.6% of them treated with radioactive iodine. **Conclusion:** Although most pediatric thyroid nodules are benign, distinguishing benign from malignant lesions is crucial. Interdepartmental communication and competence are very important in the follow-up of patients with thyroid nodules. Because of an increased risk of cancer in the pediatric population, diagnostic and therapeutic procedures for pediatrics need further research including multicenter studies to attain universal consensus regarding the diagnosis and management.

https://doi.org/10.1016/j.htct.2022.09.1272

TUMOR BIOLOGY, IMMUNOLOGY AND IMMUNOTHERAPY

PP38

TRAMETINIB EXPERIENCE IN A BRAF P.N 486 _P490DEL MUTATION POSITIVE LANGERHANS CELL HISTIOCYTOSIS

Sevim Gencel Karaaslan [1], Gül Hatice Erkol Tuncer [2], Melek Yaman Ortakoylu [2], Sonay Incesoy Ozdemir [2], Handan Dincaslan [2], Nurdan Tacyildiz [2], Ömer Suat Fitoz [3], Koray Ceyhan [4], Isinsu Kuzu [5], Emel Cabi Unal [2]

[1] *Ankara University, Department of Pediatrics, Division of Pediatric Oncology*
[2] *Ankara University, Department of Pediatrics*
[3] *Ankara University, Department of Pathology*
[4] *Ankara University, Department of Radiology, Division of Pediatric Radiology*
[5] *Ankara University, Department of Pathology, Division of Cytopathology*

Case report In Langerhans cell histiocytosis thyroid involvement is rarely seen. Here, we would like to present a 12-year-old male patient with lung, external auditory canal skin and lymph node involvement in diagnosis. Disease relapse occurred with thyroid involvement 19 months after remission. In molecular analysis, BRAF p.N 486 _P490del was detected and he reccived MEK inhibitor Trametinib monotherapy. He is still in remission for 16 months.

https://doi.org/10.1016/j.htct.2022.09.1273

PP 39

SERUM TOTAL OXIDANT AND ANTIOXIDANT STATUS IN CHILDREN WITH CANCER

Yasin Yilmaz [1], Handan Dincaslan [2], Sonay Ozdemir [2], Hatice Tuncer [2], Bugra Tanrioveri [2], Hatice Busra Kutukcu [2], Nurdan Tacyildiz [2], Emel Unal [2]

[1] *Istanbul University Istanbul Medical Faculty Department of Pediatric Hematology and Oncology*
[2] *Ankara University Medical Faculty Department of Pediatric Hematology and Oncology*

Objective: Oxidative stress has a potential role in carcinogenesis. Antioxidant enzymes have neutralizing effect both on cancer initiation, and progression. We aimed to assess the oxidant and antioxidant levels of pediatric cancer patients and to compare the levels in healthy controls. **Methodology:** The study involved 105 pediatric cancer patients (40 undergoing chemotherapy, 65 survivors) and 40 healthy children. The serum total oxidant status (TOS) and total antioxidant status (TAS) were measured. **Results:** The TOS and oxidative stress index were lower in pediatric cancer patients compared to the levels in the controls (3.73±1.35 vs. 4.21±1.72 μmol/L; p=0.08; 0.20±0.07 vs. 0.26±0.10; p=0.001, respectively). The mean serum TAS level was higher in patient groups compared to the level in the control (1.87±0.48 vs. 1.63± 0.32 mmol/L, p=0.001). The TAS level of children with cancer in survivors was still found to be significantly higher compared to the levels in the control group (1.85±0.45 vs. 1.63± 0.32 mmol/L, p=0.005). Radiotherapy, surgery, relapsed disease, presence of metastases and receiving enteral nutritional support caused no change in the TAS/TOS level. **Conclusion:** It has been revealed for the first time that the serum total antioxidant level increased during cancer treatment and didn't normalize after cessation of therapy for a long time.

https://doi.org/10.1016/j.htct.2022.09.1274