

(n=18), and demonstrated significantly increased values of the inflammatory parameters IL-6, C-reactive protein and ferritin (p-value: <0.001, 0.023, and 0.008, respectively). Remarkable, after one week follow-up, the majority of (12/15) COVID-19 patients showed quantitative recovery of their lymphocyte numbers, while TSH and thyroid hormones remained mainly disturbed.

**Conclusions:** Abnormal thyroid function correlates with low lymphocyte counts in severe sepsis and COVID-19 patients, but future studies need to establish whether a causal relationship is involved.

## Thyroid

### THYROID AUTOIMMUNITY, COVID-19 & THYROID DISEASE

#### *Amiodarone-Induced Thyrotoxicosis, Risk Factors and Predictors of Outcome: A Retrospective Study*

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**Background** Amiodarone induced thyrotoxicosis (AIT) is not uncommon and is often associated with significant morbidity and mortality. Factors that predict poor prognosis in AIT have not yet been sufficiently investigated. **Objective:** To examine the characteristics and short-term clinical outcomes of patients with AIT (up to six months from diagnosis). We evaluated the relationship between T3 and T4 levels at the time of presentation and complications associated with AIT. **Methods:** A retrospective epidemiological study on patients admitted to Carmel Medical Center between the years 2004-2018. We reviewed electronic medical records of patients who bear the diagnosis of thyrotoxicosis and consumed amiodarone. Demographic and clinical characteristics of patients that develop AIT were evaluated. We evaluated the association between T3 and T4 levels at the time of presentation a poor prognosis. Three primary outcomes were defined: 1. Mortality. 2. Development of AIT-related complications that required hospitalization. 3. The need for thyroidectomy. **Results:** 400 patients bear a diagnosis of thyrotoxicosis and consumed amiodarone. However, only 39 patients met the full definition of AIT. The composite outcome of mortality, AIT-related complications and thyroidectomy was achieved in the vast majority of patients (94.8%, 37 out of 39 participants). Three patients (7.6%) died, 35 (89.7%) were hospitalized with AIT-related complications and 8 (20.5%) required thyroidectomy. There was a statistically significant relationship between high T4 levels and the composite of two main endpoints: mortality and the need for thyroidectomy in the first half year of diagnosis (P=0.009). **Conclusions:** AIT is associated with significant morbidity and mortality. An elevated level of free T4 reflects the severity of AIT. In patients with significantly increased T4 values, an early surgical intervention should be considered.

## Thyroid

### THYROID AUTOIMMUNITY, COVID-19 & THYROID DISEASE

#### *Anxiety and Fear During the Covid-19 Pandemic: A Web-Based Survey of Thyroid Cancer Survivors*

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**Background:** The coronavirus (COVID-19) pandemic has led to rapid changes in our society and healthcare system. Cancer patients and survivors may be disproportionately affected by these changes, including decreased access to healthcare, increased infection risk, and economic challenges. We sought to determine the effects of the pandemic on thyroid cancer survivors' quality of life. **Methods:** An anonymous web-based survey was administered in collaboration with ThyCa: Thyroid Cancer Survivors' Association, consisting of questions about (1) demographics, (2) thyroid cancer clinical characteristics, (3) attitudes toward and impact of COVID-19, and (4) the Patient-Reported Outcomes Measurement Information System (PROMIS) 29-item profile. The survey was linked on the ThyCa homepage. PROMIS measures were scored using item response theory models with a T-score metric relative to U.S. reference data via the HealthMeasures Scoring Service (<https://www.healthmeasures.net>). T-scores were analyzed using Mann-Whitney U, Wilcoxon signed-rank, Kruskal-Wallis, and Spearman's rank correlation tests. **Results:** From 5/6/2020 - 10/8/2020, 505 participants accessed the survey, and all completed surveys by U.S.-based thyroid cancer survivors were analyzed (n=378, 75%). Mean age was 53 years, 89% were female, 90% were white, 74% had papillary thyroid cancer, 97% had surgery, and 70% received radioactive iodine. The vast majority agreed or strongly agreed (83%) that their lives were very different during COVID-19, as was the way they interacted with their doctors (79%). Less than half (43%) agreed or strongly agreed that they were satisfied with the amount of information from their doctor's office regarding COVID-19 changes. Compared to previously-published PROMIS data for this population, T-scores were significantly higher in the domain of anxiety/fear (57.8 vs. 56.5, p<0.01) and lower for ability to participate in social roles and activities (46.2 vs. 48.1, p<0.01). Younger age was weakly correlated with greater anxiety/fear (Spearman's rho=-0.38, p<0.01), and greater anxiety/fear was associated with pending treatment (p<0.01), lower cancer stage (p=0.01), and female sex (p=0.02). **Conclusions:** During the COVID-19 pandemic, thyroid cancer survivors reported increased anxiety/fear and decreased social participation. In our efforts to care for patients both physically and mentally as the pandemic continues, we must better understand their fears and concerns and improve communication about potential changes to their care.

## Thyroid

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