

also been reported to interfere with the thyroid function test assays for free thyroxine (T4), total T4, free triiodothyronine (T3), total T3, TSH, and various cancer markers. However, It is important to clinically evaluate the patient for thyroid disorders, and recognize that therapy may not always be required, when discrepant and fluctuating thyroid function tests are obtained, such as in this patient.

References: (1) Holmes EW, Samarasinghe S, Emanuele MA, Meah. Biotin interference in clinical immunoassays: a cause for concern. . Arch Pathol Lab Med. 2017;141:1459-1460. (2) Rossi E, Sgambato, De Chaira G, et al. Thyroid-induced toxicity of check-point inhibitors immunotherapy in the treatment of advance non-small cell lung cancer. J. Endocrinol Diabetes 2016;3:1-10.

Pediatric Endocrinology

PEDIATRIC OBESITY, THYROID, AND CANCER

Prevalence of Goitre and Thyroid Disorders in Healthy School Children of Kashmir Valley.

A Multistage Cross-Sectional Survey

Mona Sood, DM endocrinology¹, Shariq Rashid Masoodi, MD,DM, FACP, FRCP², Vishnu VASUDEVAN, MD¹, Moomin Hussain Bhat, MD,DM¹.

¹SKIMS, Srinagar, India, ²Sher-i-Kashmir Institute of Medical Sciences Srinagar, Srinagar, India.

MON-100

Background There has been a gradual transition among pattern and prevalence of thyroid dysfunctions among paediatric population post iodisation phase making it imperative to look into it with periodic surveys. **Objective** To comprehend the existent thyroid disease burden along with goitre prevalence in healthy paediatric population of Kashmir Valley. **Design** It was a cross sectional survey including 666 healthy school children of Kashmir valley of the age 6-18 years out of which 421 were girls and 245 were boys. Goitre was graded as per WHO grading system. Thyroid function test (TFT-TSH, TT4, TT3) were measured in all study subjects. Urinary iodine excretion UIE was measured in 40 subsampled children. **Results** The overall prevalence of thyroid dysfunction (goiter and or abnormal TFT) among children was 7.8% (CI 5.9-10.1%) with a prevalence of 9.3% in females (CI 2.9-8.9%) and 5.3% (CI 6.7-12.4%) in males. The overall prevalence of goitre was 2.4% with a significant difference observed in boys and girls as all 16 children with goitre were girls. UIE ranged from 71 to 558ug/gm of creatinine (median,150). TFT results were available in 563 children with abnormal results observed in 6.6% (n=37) subjects. Most common TFT abnormality was subclinical hypothyroidism (SCH) with total of 4.3% while 1.6% subjects had overt hypothyroidism and 0.7% had subclinical thyrotoxicosis. Children with subclinical disease were observed and those with overt hypothyroidism were treated accordingly. **Conclusions** Total goitre prevalence has decreased in Kashmir Valley post iodisation and continues to decrease further when we compared with previous prevalence study by Masoodi et al 2013*. However, there is a need for periodic large-scale cross-sectional surveys to know the thyroid status of our population. The most frequent thyroid function abnormality in our survey was SCH which needs judicious management as treating these children strain out stretched health resources.

*Masoodi S R et al. Goitre and urinary iodine excretion survey in schoolchildren of Kashmir Valley. Clin Endocrinol (Oxf) 2014;80(1):141-7.

Thyroid

THYROID DISORDERS CASE REPORTS I

Thyroid Storm Caused by Subacute Thyroiditis in a Patient with Methicillin-Resistant Staphylococcus Aureus Septicemia

Mansur Assaad, MD¹, Bisher Zuhdi, MD¹, Jordan Groubert, DO¹, Ahmad Al-Shoha, MBBS, FACP, FACEP².

¹Internal Medicine Residency, Summa Health/Northeast Ohio Medical University Program, Akron, OH, USA, ²Division of Endocrinology, Department of Internal Medicine, Summa Health, Akron, OH, USA.

SUN-511

Introduction:

Thyroid storm is a rare disorder with high mortality risk. It is often precipitated by an acute event in a patient with longstanding untreated hyperthyroidism. However, thyroid storm is rarely reported as a result of subacute thyroiditis (SAT). To the best of our knowledge, there are only three documented cases of thyroid storm caused by SAT. Herein we report the first patient with thyroid storm caused by SAT associated with methicillin-resistant *Staphylococcus aureus* (MRSA) septicemia and intravenous drug abuse (IVDA).

Case:

A 19-year old Caucasian woman with a history of IVDA presented with right upper extremity abscess. Symptoms included confusion, agitation, fever, chills, generalized pain, malaise, nausea, and vomiting. Heart rate was over 140, and she was found to have fever and leukocytosis. She was admitted with severe sepsis and acute encephalopathy. On exam, she had a diffusely enlarged and exquisitely tender thyroid gland without discrete nodules or bruit. Thyroid tests were consistent with primary thyrotoxicosis (TSH 0.026 IU/mL, free T3 16.90 pg/mL, and free T4 > 6.99 ng/dL). Burch-Wartofsky score was 75, highly suggestive of thyroid storm. In addition to treating her sepsis, the patient was started on a beta blocker, high dose hydrocortisone, and methimazole. Thyroid ultrasound showed a diffusely enlarged heterogeneous thyroid gland with decreased flow on color Doppler. Upon improvement, the patient admitted to symptoms of anterior neck pain, heat intolerance, palpitations, excessive sweating, and anxiety for two days prior to presentation. Blood cultures later grew MRSA. Methimazole was discontinued when the thyrotropin-receptor antibody result came back negative. The patient continued to improve clinically. Her thyroid tenderness improved, and her free T4 and T3 decreased over a 3-week period. Steroids were tapered off.

Discussion:

SAT usually causes mild to moderate thyrotoxicosis. It is unusual for SAT to cause thyroid storm. Identifying such a diagnosis in a patient with sepsis is complex. In a septic patient, it is crucial to obtain detailed history, perform a comprehensive physical exam (including neck exam), and have a high level of clinical suspicion for thyroid storm in order to reach the diagnosis early and institute appropriate