

Physical exam positive for exophthalmos, grade III goiter, crackles in both lung bases, pretibial myxedema and fulfilling criteria for a thyroid storm (65 points in Burch-Wartofsky Point Scale).

First Lab Results: TSH<0.005 μ U/mL, free T₄>7.7ng/dl and TRAB 37.8U/L. Chest ray: Global cardiomegaly and pulmonary edema. EKG: Narrow complex supraventricular tachycardia. Thyroid ultrasound: Intrathoracic goiter. Transesophageal echocardiogram: Severe mitral insufficiency (Carpentier Type I and IIIB), right cavities and left ventricular enlargement, preserved right ventricular function and severe pulmonary hypertension (PSAP 71-76 mmHg).

First treated with thiamazole, hydrocortisone IV, cholestyramine and sedation, falling time after into ventilatory failure and developing delirium, requiring invasive mechanical ventilation. Tested positive for COVID-19. Starts preparation with Lugol and undergoes Total Thyroidectomy. After surgery develops severe hypocalcemia secondary to transitory hypoparathyroidism.

During hospitalization presents multiple infections including pneumonia (*Pseudomonas Aeruginosa*), lung aspergillosis, bacteriuria (*Enterococcus Faecium*) and candiduria (*Candida Albicans* and *Glabrata*), each one treated with multiple antibiotics and vasoactive drugs. Once stable, mitral valve replacement is realized, after which, the patient progresses favorably being discharged with programmed ambulatory controls.

Conclusion: We report a case of a patient who was presented with positive thyroid storm criteria associated with heart failure and severe mitral valve insufficiency. The case gets complicated as multiple infections take place, including COVID-19. Fortunately, because of the early and aggressive multidisciplinary management, the patient evolved favorably, overcoming the life-threatening conditions she went through.

Key Words: Thyroid storm, mitral valve insufficiency, heart failure.

Bibliography: Klein I, Danzi S. Thyroid disease and the heart. *Circulation*. 2007 Oct 9;116(15):1725-35. doi: 10.1161/CIRCULATIONAHA.106.678326. Erratum in: *Circulation*. 2008 Jan 22;117(3):e18. PMID: 17923583.

Thyroid

THYROID DISORDERS CASE REPORT

Monitoring Fetus and Neonatal Outcomes in Patients With Current or Previous History of Hyperthyroidism

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Aim: Graves' hyperthyroidism can be associated with persistent TSH-receptor antibody (TRAB) and need for anti-thyroid drugs (ATD) during pregnancy warranting careful monitoring during pregnancy and the neonatal period. The aim of this retrospective observational study was to assess

the outcomes of babies born of women with current or previous history of hyperthyroidism.

Method: All women with previous or current hyperthyroidism were reviewed in the joint antenatal-endocrine clinic. Neonatal alert was instituted for all patients with positive TRAB at 20 weeks and/or requiring ATD into third trimester and included serial growth scans in third trimester, fetal medicine(FM) scan, review of neonate by paediatrician, thyroid function test(TFT) for the neonate on day 2(D2) and further tests as needed.

Results: Of the 56 patients treated over a 2 year period, 31 qualified for this study. Thyroid statuses of patients were: active hyperthyroidism at conception=20; Post radioactive iodine (RAI)=4; post thyroidectomy =2; hyperthyroidism in remission prenatally=5. 24 patients were TRAB positive at 20 weeks (Strongly positive(>3xnormal) =10) & 7 were TRAB negative. 16 patients required ATD into 3rd trimester, of whom 11 required until delivery. Presence of any TRAB positivity did not statistically predict continuation or withdrawal of treatment. FM scan was normal in all patients (one patient had hydronephrosis which was deemed not related to thyroid status and resolved spontaneously after birth). Growth Scans were normal in 26 patients. One patient had a large for gestational age fetus which was not related to thyroid status (patient in Graves' remission, TRAB weakly positive, normal FM scan, normal D2 and D14 TSH in the neonate). 4 patients had small for gestational age fetuses -2 had weakly positive and 1 strongly positive TRAB; all had normal FM scans; 1 neonate had high TSH at D2 and others normal; all neonates had normal TFT at D14. None of the neonates had clinical or biochemical hyperthyroidism on D2. 12 had high TSH on D2 - 10 normalized at D14; the other 2 were discussed with tertiary referral centre, no further medical treatment was advised and normalized spontaneously. 22 had high T₄ at D2; at D14, 14 normalized, 4 had persistent high T₄ but normal TSH (T₄ data not available on 4 but all had normal TSH). Neonates born to mothers who were using ATD at time of delivery had higher probability of having high TSH at D2 compared to those who were not (8/11 vs 4/20, p<0.005). This difference was not statistically significant based on use of ATD at onset of pregnancy (10/20 vs 2/11, p=0.08).

Conclusion: Our study showed that no neonates developed overt hyperthyroidism. Use of ATD, especially in third trimester, could be associated with risk of transient biochemical hypothyroidism in neonate. A coordinated multidisciplinary care pathway is required to monitor and manage this complex cohort of patients and neonates.

Thyroid

THYROID DISORDERS CASE REPORT

Myxedema Coma Disguised as Alcohol Withdrawal

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Introduction: Myxedema coma is a medical emergency whose symptoms may sometimes mimic other diseases such as alcohol withdrawal.

Case: A 64-year-old male with a history of alcohol abuse and bipolar disorder (on no medications) presented to