Graves disease with autoimmune hemolytic anemia

Randa F Salam, Fatma Gaber
Internal Medicine Department, Cairo University

Ep-1008
Thyroid non-cancer

Introduction
Hematologic involvement in Graves’ disease can have a wide spectrum. Autoimmune hemolytic anemia is occasionally reported in patients with other autoimmune illnesses. However, rarely reported in Graves disease.

Case report
We report a 19-year-old female with reactive arthritis, Graves’ disease and autoimmune hemolytic anemia while under treatment with methimazole.

Physical examination
Under built female BMI: 17, Blood pressure: 110/70, heart rate: 100/min, respiratory rate: 16/min, temperature: 37.6. Jaundice, pallor, no cervical, supraclavicular, epistaxis, axillary, or inguinal lymphadenopathy. The thyroid gland mildly enlarged, not nodular, no thrill or bruit. Exophthalmos with no upper eyelid retraction or tremor. Both lungs were clear. Apex: in left 5th space MCL, localized, hyperdynamic with a systolic bulge accentuated: S1, pulmonary component of S2, ejection systolic murmur over the cardiac base no click, or gallop. Abdomen soft and not tender, liver edge not palpable, the spleen was palpable 3 cm below LF costal margin, firm, smooth surface, with sharp borders. Tenderness affecting both knees with limitation of movement. No swelling, redness, or hotness.

Investigations
Hemoglobin: 4.4 g/dL, MCV: 107.2, platelet count: 193,000, WBC count: 4,000, reticulocyte count: 23.3%, Bilirubin: 4.0 mg/dL (direct 0.4), LDH: 311U/L, positive comb test, ESR: 128, CRP: positive, ANA: negative TSH: 0.01 uIU/mL (0.3-4.9), FT3: 7.62 Pg/ml (1.8-4.6), FT4: 2.98 ng/dL (0.9-1.8). Abdominal sonar mild splenomegaly, echo cardiography normal. Thyroid sonar: Enlarged RT lobe measuring (35x18x17 mm) enlarged LF lobe measuring (30x19x17 mm). Both lobes heterogeneous appearance with multiple small hypoechoic nodules ranging from 2 to 4 mm in diameter, no retrosternal extension, increased gland vascularity.

The patient was started on prednisone 1 mg/kg with rapid improvement in her anemia and jaundice. 11 days after admission hemoglobin improved to 10.0 g/dL. Prednisone was tapered off over 3 months with continued stable hemoglobin levels and no evidence of recurrent hemolysis.

Conclusion
We report a case of concurrent reactive arthritis, Graves’ disease, and autoimmune hemolytic anemia. Yersinia enterocolitica infection could theoretically cause both reactive arthritis and Graves’ disease, although we cannot prove this connection in our patient’s case which improved dramatically on steroids.

Key words: Graves’ disease – hemolytic anemia-arthritis

Reference