Graves disease with autoimmune hemolytic anemia

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Ep-1008

Thyroid non- cancer

Introduction

Hematologic involvement in Graves' disease can have a wide spectrum.[1] Autoimmune hemolytic anemia is occasionally reported in patients with other autoimmune illnesses diseaese .However rarely reported in Graves disease[2]

Case report

We report a 19 year old female with reactive arthritis, Graves' disease and autoimmune heamolytic aneamia 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, epitrochlear, axillary, or inguinal lymphadenopathy. The thyroid gland mildly enlarged not nodular no thrill or bruit Exophthalmos with no upper eye lid retraction or tremor.Both lungs were clear Apex: in left 5th space MCL , localized , hyperdynamic with systolic bulge accentuated : S1,pulmonary component t 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 :2.98ng/dl (0.9- 1.8)Abdominal sonar mild splenomegaly, echo cardiography normal

Thyroid sonar: Enlarged RT lobe measuring (35x18x17 mmL)enlarged LF lobe measuring (30x19x17 mm) Both lobes heterogeneous appearance with multiple small hypoechoic nodules rangingfrom 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/dLprednisone was tapered off over 3 months with continued stable hemoglobin levels and no evidence of recurrent heamolysis.

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

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