Topic: ANEMIA AND AUTOIMMUNE THYROID DISEASE

Title: Chronic unexplained anaemia in isolated autoimmune thyroid disease or associated with autoimmune related disorders.

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SUMMARY

Objective: The prevalence of chronic unexplained anaemia was analysed in patients with autoimmune thyroid disease (ATD).

Design: The presence of chronic unexplained anemia, defined as anemia not related to evident or occult bleeding and/or to erythropoietic disorders, was retrospectively assessed and compared in patients with non-autoimmune thyroid disease (NATD) and in patients with ATD.

Subjects & Measurements: Biochemical & morphological parameters of anemia were investigated and characterized in 1,643 consecutive Caucasian outpatients with thyroid disease. In 991 patients, thyroid disease had a non-autoimmune origin. ATD was diagnosed in 652 patients (71 with Graves' disease; 581 with Hashimoto's thyroiditis). In 145 patients, ATD was associated with other autoimmune disorders.

Results: The presence of chronic unexplained anemia was diagnosed in 123 patients (7.5%). Forty-eight had a thalassaemic trait, representing 2.9% of the whole sample. A true chronic unexplained anemia was recorded in 75/1,643 (4.6%). The occurrence of unexplained anemia was similar in patients with NATD (1.9%) and those with isolated ATD (2.96%; P=NS) but increased in patients with ATD and autoimmune related disorders (ARD) compared to patients with isolated ATD and/or NATD (28.3%; both P< 0.0001; R.R.: 9.56 & 14.75, respectively). Chronic unexplained anemia was virtually absent in hyperthyroid patients and was more prevalent in hypothyroid than in euthyroid patients with ATD (P=0.005; R.R.: 2.104).

Conclusions: These results indicate that the increased frequency of chronic anemia in patients with ATD is essentially due to the presence of concomitant autoimmune gastro-intestinal diseases.

COMMENT

In two recent previous commentaries (see Thyroid Update: 2008-II-10 & 2008-II-11), we had the opportunity to comment on 2 articles dealing with the frequent association of atrophic body gastritis or presence of parietal cell antibodies with autoimmune thyroid diseases (AITD). In present article, the authors showed that the overall frequency of chronic anemia was significantly higher in patients with AITD (12.8%), compared with patients with thyroid disorders of non-AITD origin (4.2%). When scrutinizing in greater detail those patients with truly unexplained chronic anemia (thus excluding thalassemia, etc.), the authors showed that anemia was mainly associated with hypothyroidism - and not with hyperthyroidism -, although not necessarily related directly to thyroid function: 19% in overt hypothyroidism and 13% in subclinical hypothyroidism versus 6.8% in euthyroid patients with Hashimoto’s disease. Finally, it was observed that
anemia was present in only 3% of patients with isolated AITD compared with a surprisingly high prevalence of 28% when the patients had both AITD and other autoimmune-related disorders, mainly atrophic gastritis with pernicious anemia or celiac disease.

In summary, chronic unexplained anemia was not associated with thyroid disease *per se* but with the concomitant presence of autoimmune & non-autoimmune disorders of the gastro-intestinal tract.

(Daniel Glinoer, M.D.; Ph.D.)

See Figure below