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Autoimmune Thyroiditis with CREST Syndrome - A Rare Case

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Abstract
Autoimmune thyroid diseases (AITDs) including Hashimoto's thyroiditis and Grave's disease are the most common autoimmune diseases found highly prevalent in middle aged female patients. These can be commonly associated with presence of other autoimmune diseases like systemic sclerosis but rarely found to be present with CREST syndrome (Calcinosis, Raynaud's phenomenon, Esophageal dysmotility, Sclerodactyly and Telangiectasias). Presence of overlap syndrome should be thoroughly evaluated in patients presenting with autoimmune diseases for effective management.
Keywords: *Auto immune thyroid disease, CREST syndrome, Raynaud's phenomenon.*

Introduction

Autoimmune thyroid diseases (AITD) is a well established clinical entity occurring mostly in the middle aged women[1]. It is characterized by lymphocytic infiltration of the thyroid gland and presence of anti thyroid antibodies like anti thyroperoxidase, anti thyroid stimulating hormone and anti thyroglobulin. It can sometimes coexist with other autoimmune disorders, known as overlap syndromes where two or more autoimmune disorder coexist in same individual[2]. Most commonly overlap syndrome of AITD and systemic scleroderma were reported in previous studies[3]. Here we present a case of AITD overlapping with CREST syndrome (Calcinosis, Raynaud's phenomenon, Esophageal dysmotility, Sclerodactyly and Telangiectasias) which is a rare association.

Case Report

A 54 years old female patient, known case of hypothyroidism on treatment presented with complaints of bluish discolouration of fingers of both hands of 3 months duration which was associated with pain (figure 1). The symptoms aggravated after contact with cold water and was relieved once the triggering factor was removed. Examination vitals of the patient were stable and systemic examination was normal except for bluish discolouration of the fingers of bilateral hand. Complete blood count was normal. Laboratory evaluation of the patient revealed increased levels of anti thyroperoxidase antibodies (>1300) suggestive of AITD. Further immunological assay revealed high levels of antinuclear antibodies and anti-centromere antibodies which helped in making the diagnosis of CREST syndrome.

Fig. 1 Raynaud's phenomenon

Discussion

AITDs represent most common autoimmune disorder with high prevalence among female population. It is reported to be commonly associated with other autoimmune diseases like vitiligo and scleroderma, but coexistence with CREST syndrome is extremely rare. In our case, the only presenting complaint was pain and discolouration of fingers, which when evaluated with auto antibodies assay revealed possibility of CREST syndrome with AITD. The present patient was initially diagnosed to have hypothyroidism, which later due to the presence of Raynaud's phenomenon prompted reinvestigation and revealed as AITD. This emphasize that a patient with an autoimmune disorder should be carefully attended as multiple immune mediated diseases may be present simultaneously or can appear sequentially during the course[4]. Also these patients are at a higher risk of acquiring infections due to prolonged usage of immunosuppressants and steroids. Previous studies have shown high incidence of various malignancies also in this vulnerable group of patients. These patients require close monitoring and screening to identify other autoimmune disorders for early initiation of treatment and prevention of complications.

Conclusion

Overlap syndromes involving AITD and other connective tissue autoimmune disorders are commonly reported. Patients presenting with AITD should be screened for other autoimmune connective tissue disorders and vice versa for early diagnosis and effective management.

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