

CASE REPORT

Acute Urticaria Associated with Thyroid Papillary Carcinoma: A Case Report

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Although there are several studies showing the association between cancer and urticaria, the mechanisms by which these events occur are not yet known. In this report, a case of acute urticaria with a diagnosis of thyroid papillary carcinoma is presented. Disappearance of treatment-resistant urticarial lesions after thyroidectomy suggests that this association was not a coincidence. The fact that urticaria which was nonresponsive to treatment disappeared spontaneously as a result of tumorectomy, strongly suggests that this association is not a coincidence. To our knowledge, this is the first report of the coexistence of acute urticaria and thyroid papillary carcinoma. This case provides further support that detailed history taking and a thorough physical examination are of paramount importance. (**Ann Dermatol 24(4) 453 ~ 454, 2012**)

-Keywords-

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INTRODUCTION

The association between thyroid autoimmunity and chronic urticaria has been well established and urticaria is very

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common in patients with autoimmune thyroid disorders¹. However, the coexistence of thyroid cancer and chronic urticaria is rarely seen². In this report, a patient who visited our outpatient clinic with acute urticaria is presented and in this case autoimmune thyroid disease and thyroid papillary cancer are detected as a result of clinical and laboratory investigations.

CASE REPORT

A 25 year-old male patient was referred our outpatient clinic with complaints of pruritic skin lesions which started approximately 7 days ago. The examination of the patient revealed urticarial plaques in several sizes throughout his body and a solitary thyroid nodule with a diameter of 1 ~ 1.5 cm. Other findings were normal. Upon diagnosis of acute urticaria without any identifiable cause, desloratadine tablets (10 mg/day, per os) were started.

Laboratory investigations of the patient were normal except for high levels of thyroid autoantibodies (anti-thyroid peroxidase, 55 IU/ml, anti-thyroglobuline: 300 IU/ml). Thyroid ultrasonography detected a hypoechoic nodule with a diameter of 10 mm. Cytological examination of the biopsy specimen taken from the thyroid nodule with fine-needle aspiration was reported as 'Thyroid Papillary Carcinoma'.

A dose of 60 mg of prednisolone was added to the treatment of the patient who was clinically nonresponsive despite doubling of an antihistamine dose. Nevertheless, this five-day treatment did not result in any benefits.

The patient underwent total thyroidectomy because of the papillary thyroid carcinoma and all other issues disappeared spontaneously after the second day of the post-operative period; there have been no urticarial symptoms in the patient 9th months after surgery.

DISCUSSION

Although the existence of an association between allergy and cancer has been known for a long time, which mechanisms causing this association has not yet clarified. The immune system functions which have an important role in carcinogenesis undergo a change during the course of allergic diseases. Based on this knowledge can be said that a link between cancer and allergic diseases³. It is known that decreased tissue and blood histamine levels causes an increased risk in tumor progression while interleukin (IL)-4 and IL-10, which are eosinophil and Th2 derived cytokines, have antitumor effects^{4,6}.

Further, epidemiological studies on several cancers have contradictory results themselves. While studies which indicate that atopy is a risk factor in prostate and testicular cancer, there are also some studies demonstrating that leukemia, lymphoma and brain cancer are decreased with atopy⁷⁻¹⁰.

Also, several cancer cases having an association with chronic urticaria are reported. Myeloma, ovarian cancer and leukemia are examples¹¹⁻¹³. Among these cancer types, a chronic urticaria case series included 4 patients who were diagnosed with thyroid papillary carcinoma was noted². In this study, a 'chronic urticaria' patient who did not respond to antihistamine and oral steroid treatments was diagnosed with thyroid papillary carcinoma and urticarial symptoms disappeared after total thyroidectomy.

With regard to the mentioned studies and case presentations, it is unlikely that the association between urticaria and cancer was a coincidence, although direct evidence about the mechanism(s) causing this situation has not been determined.

This is the first case report in the literature demonstrating thyroid papillary carcinoma and acute urticaria, where urticaria symptoms disappeared after thyroidectomy. If we had overlooked this 1 cm tumor which was diagnosed at an early stage by a detailed physical examination, the title

of our case presentation would have been 'chronic urticaria and thyroid papillary carcinoma'.

Acute urticaria may be a paraneoplastic symptom which must be considered.

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