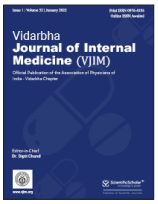
ScientificScholar®
Knowledge is power
Publisher of Scientific Journals

https://vjim.org/

Vidarbha Journal of Internal Medicine



Case Report

Wrapped up in Rarity: A Case of Multiple Autoimmune Syndrome

Sharang Gupta[1], Dimple Chopra[1]

[1]Department of Dermatology, Government Medical College, Patiala, Punjab, India.

ABSTRACT

Multiple autoimmune syndromes are a condition, in which patients have at least three distinct autoimmune conditions. The association of vitiligo and alopecia areata with hypothyroidism and type 1 diabetes mellitus is well known, though the coexistence of four autoimmune disorders in a single patient is an extremely rare occurrence. The coexistence of multiple autoimmune disorders highlights the need for continued surveillance for the development of autoimmune disorders in predisposed patients. Here, we report a case of a 32-year-old male harbouring four autoimmune disorders simultaneously.

Keywords: Alopecia areata, Multiple autoimmune syndrome, Vitiligo

INTRODUCTION

Co-existence of at least three autoimmune disorders in a single patient is referred to as multiple autoimmune syndrome.[1] It is hypothesised that all autoimmune disorders originate from a common source and share similar pathophysiological mechanisms. Hence, it is plausible to argue that one autoimmune disorder might make an individual susceptible to the development of other autoimmune disorders.[2] Disorders of skin autoimmunity, especially vitiligo, take a central seat in the setting of multiple autoimmune syndrome.[3] The Association o f v itiligo and alopecia areata with autoimmune hypothyroidism and type 1 diabetes mellitus is well known, though the occurrence of four autoimmune disorders simultaneously in an individual is extremely rare. Herein, we report a case of multiple autoimmune syndromes with four autoimmune disorders.

CASE REPORT

A 32-year-old male, cab driver by profession, presented to the dermatology OPD with chief complaints of patchy hair loss in the scalp since 6 months and depigmented white flat lesions on the dorsa of the fingers since 3 months. The patient was a known case of type 1 diabetes mellitus since the age of 8 years.

On examination, a solitary, well-defined, and smooth patch of alopecia measuring roughly 4*4 cm was seen on the occipital area of the scalp. No skin colour or textural changes could be appreciated in the patch of alopecia [Figure 1a]. Furthermore, well-defined depigmented macules and patches with a scalloped border were seen on the dorsa of fingers of both the hands [Figure 1b].

Dermoscopy was carried out using Hiene Delta 20T handheld dermatoscope at ×10 magnification. Dermoscopic examination of the scalp revealed black dots, yellow dots, exclamation mark hair, cadaverized hair, coudability hair, and Pohl-Pinkus constriction consistent with a diagnosis of alopecia areata [Figure 2a]. Dermoscopy of the depigmented lesions showed well-defined structureless depigmented white areas with a relatively hyperpigmented border corroborating with the diagnosis of vitiligo [Figure 2b].

The laboratory examination of the patient revealed the following results:

1. Fasting blood sugar – 154 mg/dl (60–100 mg/dl)
2. Plasma fasting C-Peptide levels – 0.1 ng/mL (0.5–2.0 ng/mL)
3. Triiodothyronine – 0.7 ng/ml (0.5–1.85 ng/ml)
4. Thyroxine – 6.30 µg/dl (4.8–11.6 µg/dl)
5. Thyroid-stimulating hormone – 7.6 µIU/ml (0.4–4.2 µIU/ml)
6. Anti-thyro-peroxidase antibody – >1000 IU/ml (0.0–34.0 IU/ml)

The laboratory results were consistent with a diagnosis of type 1 diabetes mellitus. In addition, the patient was found to be suffering from autoimmune hypothyroidism. Keeping in mind the results of clinical and laboratory examination, the patient was labelled as a case of multiple autoimmune syndrome.

***Corresponding author:** Sharang Gupta, Department of Dermatology, Government Medical College, Patiala, Punjab, India. drsharanggupta97@gmail.com

Received: 07 June 2022 **Accepted:** 10 June 2022 **Published:** 10 August 2022 **DOI**: 10.25259/VJIM_13_2022

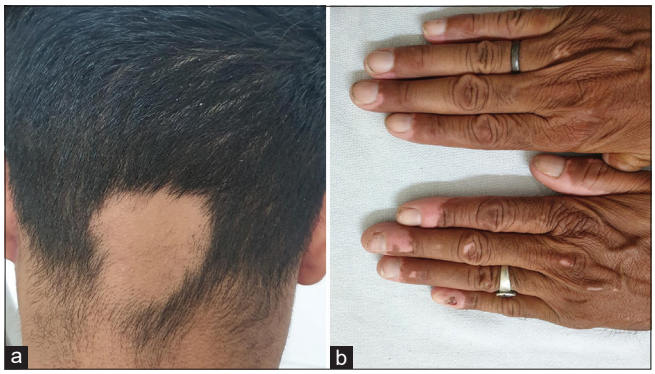


Figure 1: Clinical examination of the scalp revealing a well-defined, smooth patch of alopecia measuring approximately 4*4 cm in size on the occipital scalp (a), and well-defined depigmented macules and patches with a scalloped border are seen on the dorsa of fingers of both the hands (b).

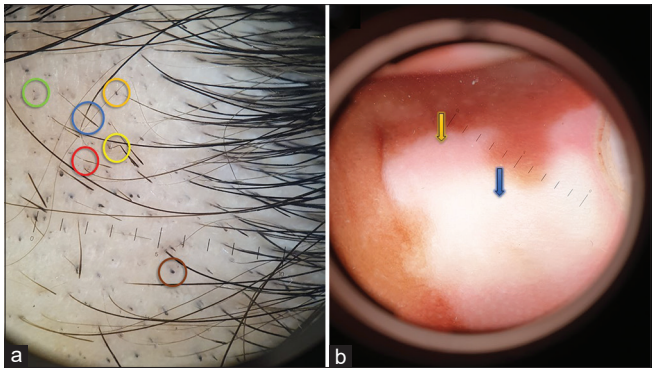


Figure 2: Dermoscopic examination of the scalp revealed black dots (orange circle), yellow dots (green circle), exclamation mark hair (blue circle), cadaverized hair (brown circle), coudability hair (yellow circle), and Pohl-Pinkus constriction (red circle) (a). Dermoscopy of the depigmented lesions showed well-defined structureless depigmented white areas (blue arrow) with a relatively hyperpigmented border (yellow arrow). (b) (Heine Delta 20T handheld dermatoscope, ×10).

DISCUSSION

It is now well known that disorders of autoimmune aetiology occur with increased frequency in a patient already suffering from another autoimmune disease. Conventionally, multiple autoimmune syndromes have been classified into three types depending on the prevalent association of autoimmune disorders. Type 1 includes myasthenia gravis, thymoma, polymyositis, and giant cell myocarditis. Type 2 groups together Sjögren's syndrome, rheumatoid arthritis, primary biliary cirrhosis, scleroderma, and autoimmune thyroid disease. Type 3 comprises autoimmune thyroid disease, myasthenia and/or thymoma, Sjögren's syndrome, pernicious anaemia, idiopathic thrombocytopenic purpura, Addison's disease, insulin-dependent diabetes, vitiligo, autoimmune haemolytic anaemia, systemic lupus erythematosus, and dermatitis herpetiformis. In addition to these, many other autoimmune conditions may be found in patients with multiple autoimmune syndrome in various combinations.[4]

Shared susceptibility genes and similar underlying molecular mechanisms may explain the tendency of autoimmune disorders to the cluster.[5] There is strong evidence to suggest that the presence of one autoimmune disorder makes a patient susceptible to the development of another one. Family history of autoimmune disorders is also contributory to making an individual prone to the development of an autoimmune disease.

CONCLUSION

Co-existence of autoimmune disorders is not uncommon. Patients suffering from an autoimmune disorder should be screened for the presence and/or subsequent development of another one. Clinicians should always be on high alert in such cases. Continued surveillance by the treating physician is essential to catch the subsequently developing diseases early on.

Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent.

Financial support and sponsorship

Nil.

Conflicts of interest

There are no conflicts of interest.

REFERENCES

1. Castiblanco J, Sarmiento-Monroy JC, Mantilla RD, Rojas-Villarraga A, Anaya JM. Familial aggregation and segregation analysis in families presenting autoimmunity, polyautoimmunity, and multiple autoimmune syndrome. J Immunol Res 2015;2015:572353.
2. Sloka S. Observations on recent studies showing increased co-occurrence of autoimmune diseases. J Autoimmun 2002;18:251-7.
3. Matusiewicz A, Stróżyńska-Byrska J, Olesińska M. Polyautoimmunity in rheumatological conditions. Int J Rheum Dis 2019;22:386-91.
4. Mohan MP, Ramesh TC. Multiple autoimmune syndrome. Indian J Dermatol Venerol Leprol 2003;69:298-99.
5. Castiblanco J, Arcos-Burgos M, Anaya JM. What is next after the genes for autoimmunity? BMC Med 2013;11:197.

How to cite this article: Gupta S, Chopra D. Wrapped up in rarity: A case of multiple autoimmune syndrome. Vidarbha J Intern Med 2022;32:155-6.