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## Hypertrichosis Lanuginosa Acquisita Associated with Autoimmune Hepatitis

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Dear Editor:

Hypertrichosis lanuginosa acquisita (HLA) is a rare disorder characterized by the appearance of fine hairs (lanugo), which are relatively long and slightly pigmented. Apart from the face, HLA occurs on the trunk, limbs, and axillae. HLA is frequently associated with various diseases but most commonly with cancer. Among the associated cancers, lung and colon cancers are the most common followed by breast cancer, uterine cancer and lymphoma. In non-malignant conditions, HLA is often associated with endocrine or metabolic disorders including immunodeficiencies, anorexia nervosa, thyrotoxicosis and porphyria cutanea tarda. In some cases, HLA may be due to the use of medications, such as phenytoin, streptomycin, cyclosporin, psolaren and minoxidil that cause hair growth<sup>1</sup>.

A 46-year-old female presented with hypertrichosis on her shoulder, back, neck, and face, which first appeared a year earlier (Fig. 1). The lanugo grew on her face and then spread to other parts of the body, where it became darker and coarser. She was not taking any medication and there was no history of disease. To find the disorder associated with HLA, complete blood count, biochemical, hormone

level, and autoimmune antibody tests were performed. Biochemical testing revealed elevated serum aspartate aminotransferase (63 U/L, normal <31 U/L), alanine aminotransferase (73 U/L, normal <31 U/L), alkaline phosphatase (464 U/L, 42 < normal < 98 U/L), and gamma-glutamyl transferase (339 U/L, normal <51 U/L) levels. Anti-nuclear (1:640, cytoplasmic pattern) and anti-mitochondrial antibodies tested positive. Serum immunoglobulin G levels reached the upper limit of normal at 1,626 mg/dl (reference, 680~1,620 mg/dl). Viral markers for hepatitis tested negative. We observed a minimal diffuse increase in hepatic echogenicity on liver ultrasonography and core needle liver biopsy; these findings were consistent with autoimmune hepatitis (Fig. 2). Based on the above findings, the patient was diagnosed as having HLA with autoimmune hepatitis. She is taking hepatotonics and undergoing regular follow-up. Although her liver function has normalized over time, the lanugo has not reduced (Fig. 1).

So far, there is only one published case of HLA related to autoimmune hepatitis<sup>2</sup>, and the present report supports the association between HLA and autoimmune hepatitis. In this case, a liver biopsy was performed, and the patient

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was diagnosed with autoimmune hepatitis, using the simplified criteria proposed by Hennes et al<sup>3</sup>.

No study has explained the mechanism behind autoimmune hepatitis causing hypertrichosis. Nevertheless, it is reasonable to consider the link between the two diseases by excluding other possible causal systemic disorders and drugs; a few studies have reported the relation between autoimmune diseases and hypertrichosis<sup>4,5</sup>. However, further research is needed to elucidate the agents that triggering hypertrichosis in patients with autoimmune hepatitis. Our patient complained of persistent hypertrichosis despite im-

provement of her liver function. Therefore, we can assume that there is no positive correlation between the disease activity of autoimmune hepatitis and the clinical severity of HLA. In conclusion, this case demonstrates the relationship between HLA and autoimmune hepatitis. As the spectrum of diseases associated with HLA is diverse, clinicians should consider the possibility of autoimmune hepatitis when HLA is diagnosed.

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## CONFLICTS OF INTEREST

The authors have nothing to disclose.

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## DATA SHARING STATEMENT

Research data are not shared.

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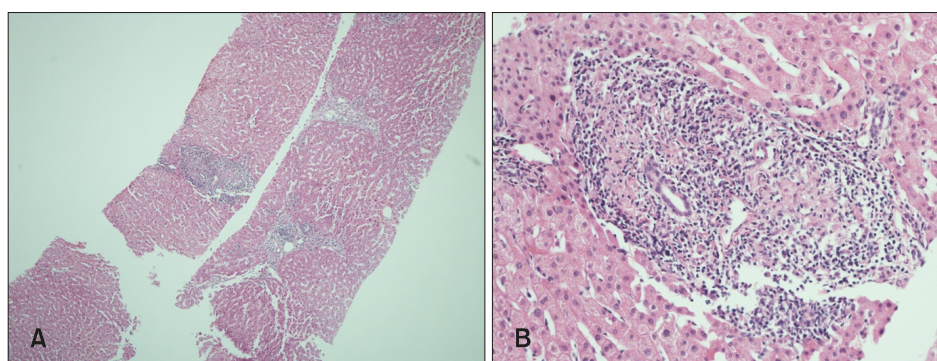
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**Fig. 1.** (A) Fine and relatively long lanugo growth was observed on the patient's neck, shoulder, back at the initial visit. Six years after the diagnosis and treatment, dense lanugo growth was observed on her face (B), neck (C), and upper extremities (D).



**Fig. 2.** (A) A core needle liver biopsy revealed dense portal inflammation and interface hepatitis (H&E,  $\times 40$ ). (B) A mixed pattern of inflammatory cell infiltration, including plasma cells, and chronic granulomatous inflammation were noted (H&E,  $\times 200$ ).

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