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Synchronous Onset of Symmetrically Associated Extragenital Lichen Sclerosus and Vitiligo on both Breasts and the Vulva

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Dear Editor:

Lichen sclerosus (LS) is a chronic destructive inflammatory disease that affects the epidermis and dermis, particularly the genital and perineal areas¹. However, cases of coincidental LS and vitiligo are rarely reported². Although the exact mechanism of the co-development of LS and vitiligo is unknown, both have been reported to be associated with autoimmune diseases or certain infections².

A 66-year-old woman presented with asymptomatic hypopigmented patches symmetrically located on both breasts and the genital area (Fig. 1). These patches first appeared on her left breast 1.5 years ago and on her right breast and genitalia 1 year ago. She was healthy with the exception

of being a hepatitis B carrier and had no history of medication. On physical examination, the left breast lesion was a shiny crinkled thin hypopigmented patch; meanwhile, both the right breast and genital lesions were even hypopigmented patches. Wood's lamp test showed the right breast and genital lesions were accentuated while the left breast lesion was not. She was positive for hepatitis B surface antigen (HBsAg) and negative for HBs antibody (HBsAb) and hepatitis C virus (HCV) hepatitis C virus antibody (HCV Ab). The results of other laboratory tests including thyroid function test and antinuclear antibody screening were normal. Punch biopsies were performed on the left breast and genital lesion. Histologic analysis of the left breast lesion showed an effaced epidermis and homogenized edematous papillary dermis. Meanwhile, the genital lesion exhibited an absence of melanin, which was highlighted by Fontana-Masson staining (Fig. 2). Therefore, the left breast lesion was diagnosed as LS, and the right breast and genital lesions were diagnosed as vitiligo. Vitiligo and LS were treated with an excimer laser and a topical steroid, respectively; she has since exhibited gradual improvement.

Both LS and vitiligo have autoimmune etiologies. A study of autoimmunity in 350 women with LS revealed that

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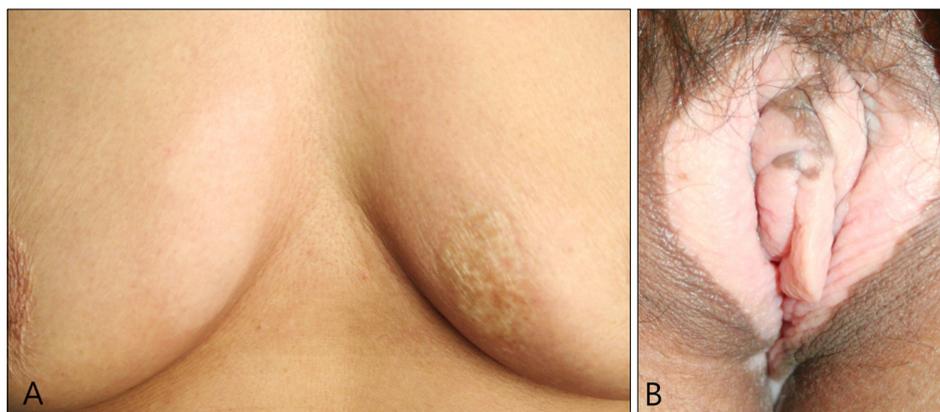


Fig. 1. (A) A thin shiny crinkled hypopigmented patch on the left breast and an even hypopigmented patch on the right breast. (B) An even hypopigmented patch on the vulva.

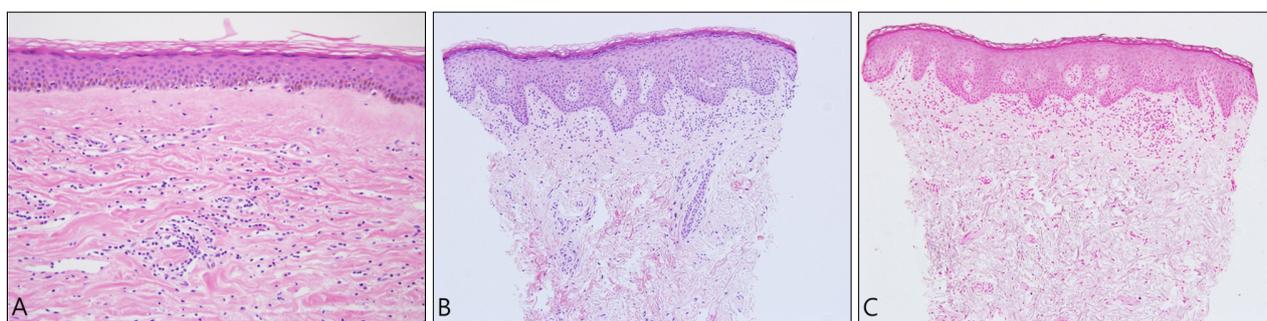


Fig. 2. (A) Histologic evaluation of the left breast lesion showing an atrophic epidermis and papillary dermal edema. Lymphocytes are present below the hyalinized collagen with vacuolar changes and basal hyperpigmentation (H&E, $\times 200$). (B, C) Histological evaluation of the vulvar lesion showed a complete absence of melanin (B: H&E, $\times 100$; C: Fontana-Masson, $\times 100$).

21.5% had one or more autoimmune-related diseases and 42% had an autoantibody titer $\geq 1:20^3$. Autoantibodies to a specific protein, extracellular matrix protein I, were recently detected in 75% of LS patients². Vitiligo is also frequently associated with the presence of organ-specific antibodies and is 10~15 times more common in patients suffering from certain autoimmune diseases¹. The accompanying autoimmune disease and presence of antibodies against melanocytes in some vitiligo patients support the autoimmune theory⁴. However, vitiligo has also been reported in association with chronic HCV infection. HCV infection may place the patient in a state of latent vitiligo owing to some unknown autoimmune mechanism⁴. Although there is currently no clinical evidence of an association between vitiligo and hepatitis B virus (HBV) infection, such an association cannot be completely ruled out, because HBV and HCV infections share some extrahepatic manifestations such as cryoglobulinemia, glomerulonephritis, and polyarteritis nodosa⁵.

In summary, we report a rare case of the coincidence of extragenital LS and vitiligo symmetrically distributed on both breasts and genitalia in a hepatitis B carrier. This coincidence could support the common autoimmune etiology of both diseases. Furthermore, immune system alter-

ation could possibly be due to HBV infection. Therefore, further studies are required.

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