

CLINICAL IMAGE

Possible HSP reactivation post-COVID-19 vaccination and booster

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Abstract

A 45-year-old woman with a history of Henoch-Schönlein (HSP) purpura received COVID-19 vaccination. The patient showed HSP reactivation after COVID-19 vaccination and booster. In HSP, autoimmune memory of vasculitis persists and might be reactivated with COVID-19 vaccination.

KEYWORDS

antistreptokinase, COVID-19 vaccine, Henoch-Schönlein purpura

A 45-year-old woman with a history of Henoch-Schönlein purpura (HSP) during pregnancy 20 years ago improved in 2 months without any medication. The patient received intramuscular coronavirus disease (COVID-19) vaccination (COMIRNATY®). Within 24 hours, a purpuric rash appeared on the extremities, however, no sign for itching, abdominal pain, fever, nor hematuria. Nineteen days later, the patient inquired about the feasibility of booster vaccination, and was advised to defer vaccination, because of the prolonged purpuric rash, although scratching, erosion, crust, or liner erythema was undetected (Figure 1A). Antibody titers indicated previous infections for rubella, measles, and Epstein-Barr virus, but no parvovirus or cytomegalovirus. Normal white blood cell and eosinophil count and C-reactive protein; immunoglobulin E, M, G, and A; 50% hemolytic component activity, C3 and C4, despite marginally increased antistreptokinase levels, were observed. A week later, purpura had almost disappeared without medication (Figure 1B) and, however, recurred within 6 days after receiving the vaccine booster (Figure 1C).

COVID-19 causes primary or secondary damage to blood vessels. There have been several reports describing immune thrombocytopenic purpura related to COVID-19 vaccination.^{1,2} In HSP, autoimmune memory of vasculitis persists and might be reactivated with COVID-19 vaccination.

CONFLICT OF INTEREST

The authors have declared that no competing interests exist.

AUTHOR CONTRIBUTIONS

Makoto Kondo treated the patient. Makoto Kondo and Keiichi Yamanaka wrote the manuscript.

ETHICAL APPROVAL

Written consent was obtained from the patient.

CONSENT

All the mentioned authors obtained consent for publication.

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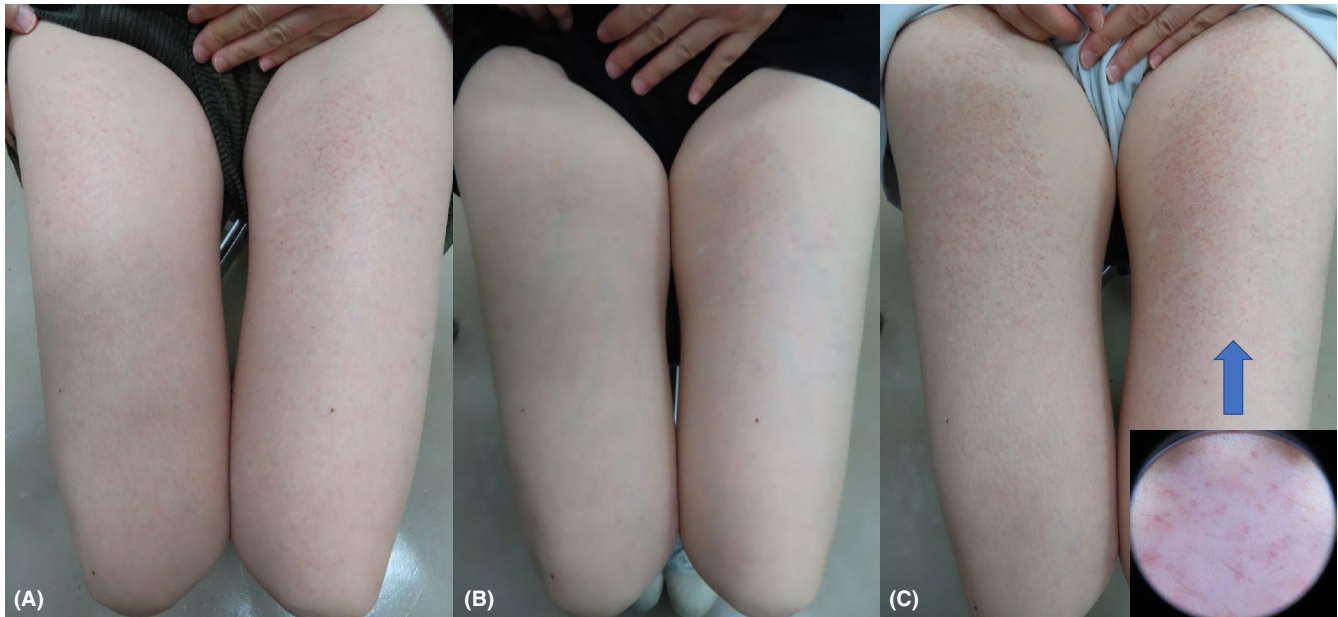


FIGURE 1 (A) The purpura appeared on the lower legs after receiving first intramuscular COVID-19 vaccination. The patient experienced Henoch-Schönlein purpura. (B) A week later, 27 days after receiving first intramuscular COVID-19 vaccination, purpura had almost disappeared. (C) The purpura developed on the legs again 6 days after receiving the vaccine booster. Dermoscopy showed small purpura vessel sign

DATA AVAILABILITY STATEMENT

The data that support the findings of this study are available from the corresponding author upon reasonable request.

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