

An Unusual Cause of Splinter Hemorrhages: Herpes Zoster Infection

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A 76-year-old male had been suffering from gastric carcinoma for three years. Despite being administered three cycles of systemic chemotherapy over the three years, he developed liver metastasis, for which he was hospitalized in the oncology department. Docetaxel, a taxane-based therapeutic agent, was administered in view of metastasis. One week after the second infusion of docetaxel was administered, the patient was referred to our dermatology clinic for vesicular lesions that had developed over his trunk and left arm. The patient reported that he experienced severe pain in his left hand and arm before the skin lesions appeared. Dermatologic examination revealed grouped hemorrhagic vesicles and pustules in the left scapular area, axilla, medial arm and forearm, medial aspect of the palmar surface, and dorsum of the 3rd-5th fingers, which correspond to the 7th-8th cervical (C7-C8) dermatomes (Figures 1 and 2). The lesions were separated from the midline by a sharp line. Additionally, there were multiple vesicular lesions scattered over the trunk and extremities. Considering the patient's immunosuppressed state and multiple vesicular lesions outside the involved dermatomes, the patient was diagnosed with disseminated herpes zoster. Careful examination of the patient's nails revealed splinter hemorrhages in the 3rd-5th nail bed of the left hand, which are usually innervated by C7-C8 (Figure 3, a-c). Dermoscopy confirmed the presence of longitudinal hemorrhages under the nail plate (Figure 3, d-f). We did not observe splinter hemorrhages in the remaining nails or hemorrhagic vesicles on the other fingers. The patient also stated that he had not noticed nail bed hemorrhages before.

Splinter hemorrhages occur due to damage of the longitudinally arranged capillaries in the nail bed. Disruption of these capillaries causes fine, linear, nonblanchable, reddish-brown-to-black streaks.¹ Historically, splinter hemorrhages were reported in patients with infective endocarditis.² Since then, splinter hemorrhages have been attributed to various dermatological and systemic conditions.

Nevertheless, it occurs idiopathically in otherwise healthy adults and is mainly induced by trauma.³ Infectious diseases that cause septicemias such as meningococcemia or connective tissue

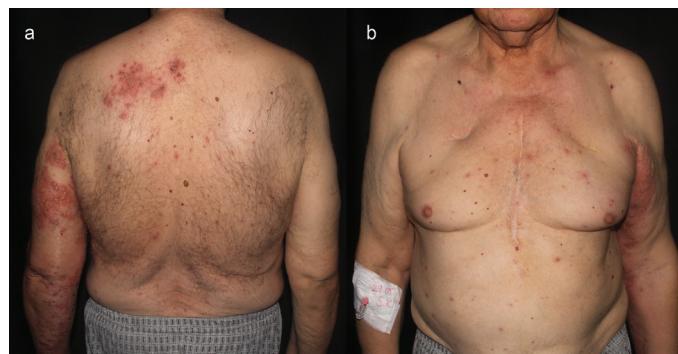


FIG. 1. Grouped hemorrhagic vesicles and pustules located over the left scapula, axillary area, and medial aspect of the arm, which are delineated from the midline by a sharp line. Multiple vesicular lesions over the trunk suggest dissemination of the herpes zoster infection.



FIG. 2. Hemorrhagic vesicles are visualized on the hypothenar region of the hand and the volar and dorsal surfaces of the 3rd-5th fingers, which correspond to the distribution of the C7-C8 dermatomes.



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FIG. 3. Close-up of the splinter hemorrhages under the nail plate (a-c). Longitudinal hemorrhages along the capillaries of the nail bed are clearly visible on dermoscopy (d-f).

disorders, systemic vasculitis, and certain drugs can also be responsible for splinter hemorrhages.¹ Chemotherapeutic agents, especially kinase inhibitors such as sunitinib and sorafenib, can induce splinter hemorrhages because of their anti-angiogenic effects.³ The most common dermatologic disorders linked to splinter hemorrhages are psoriasis and lichen planus.^{4,5} The fact that the splinter hemorrhages in our patient were localized to the fingers in specific dermatomes indicates that there was direct herpes zoster involvement of the nail bed. This was further supported by

the presence of hemorrhagic vesicles near the nail unit. Herein, we highlight with demonstrative clinical images that herpes zoster can be a potential etiology of splinter hemorrhages, which has not yet been documented in literature.

Informed Consent: Written informed consent was obtained from patient.

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