

Short Communication



Varicella Zoster Virus Detection from the Crust using by Derma Quick[®] VZV

Keywords

Crust; Derma Quick[®] VZV; Herpes Zoster Virus; Immunochromatography

Abbreviation

HSV : Herpes Simplex Virus

HZ : Herpes Zoster

VZV : Varicella Zoster Virus

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Herpes Zoster (HZ) is induced by the reactivation of Varicella Zoster Virus (VZV) infected latently in the nerve ganglion. Initially HZ patients feel a superficial pain at the nerve region of VZV reactivation. And then a band like erythema appears around the nerve-dominant region and gradually changes from blister to crust. Dermatologists often diagnose by the patient's painful symptom and characteristic eruption. Skilful doctors also make a diagnosis by the detection of giant cells from the blister.

Derma Quick[®] VZV, the detection kit for VZV using easy and quick immunochromatography, is recently released and commercially available [1]. The kit is composed of fixed anti-VZV monoclonal antibody on the cartridge and possible to detect VZV antigen rapidly in 5 to 10 minutes. The recommended sample for this kit is bulla content from HZ, and has a sensitivity of 93.2% and a specificity of 98.8% for VZV, showing no cross-reactivity with Herpes Simplex Virus (HSV)-1 and HSV-2.1 Dermatologist diagnoses HZ without any difficulty because HZ shows typical clinical phenotypes. The current kit will contribute mainly to the hospital without dermatologist. We here reported new finding and how to use it for non-dermatologist physicians as rapid diagnosis in patient with severe erythema, erosion, and eschar; resembling to trauma with haemorrhage or in patient with difficulty of communication, resulting in the delay of diagnosis. For this reason, we investigated VZV antigen from the crust using Derma Quick[®] VZV. We succeeded in the detection of VZV antigen from crust (Figure 1). Surprisingly, VZV antigen was still positive from the crust in patient after taking anti-HZ drug for seven days. Therefore, the kit will help the definite diagnosis of a patient with multiple atypical crust for dermatologists as well as non-dermatologist physicians.



Case	1	2	3	4	5	6
Age	76	70	73	52	84	79
Sex	F	M	F	F	M	F
Past history	Diabetes, Cerebral Infarction	Diabetes, Cardiac Infarction	Dermatomyositis	None	Dementia	Hypertension
First consulted day from onset	Unknown	3	3	13	Unknown	4
Days of taking anti-HZ drug	4 Days	7 Days	7 Days	7 Days	None	6 days
The kind of used drug	Aciclovir	Famciclovir	Famciclovir	Valaciclovir	none	Valaciclovir
Previous history of HZ	0	0	0	3	Unknown	0
The day performed test from crust after onset /result	7 day/+	7 day/+	14 day/-	14 day/-	Unknown/-	12 day/+

Figure 1: The summary of HZ patients using this kit. Typical two cases of patient’s history infected HZ and figures after taking anti-HZ drug are also presented.

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Competing Interest: The authors have declared that no competing interests exist.

References

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