

# Atypical Multimeric Presentation with Paresis of Zoster in an Immunocompromised Patient

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**Abstract** We report an uncommon multimeric presentation (L3, L4 and L5) of zoster with paresis in a 56-year-old-immunocompromised woman with past history of systemic lupus erythematosus. She was treated previously by immunosuppressive therapy with several infectious complications.

**Keywords:** herpes zoster virus, immunosuppression, acyclovir

**Cite This Article:** Ines Kechaou, Eya Cherif, Imene Boukhris, Samira Azzabi, Lamia Ben Hassine, and Narjess Khalfallah, "Atypical Multimeric Presentation with Paresis of Zoster in an Immunocompromised Patient." *American Journal of Medical Case Reports*, vol. 6, no. 3 (2018): 53-54. doi: 10.12691/ajmcr-6-3-4.

## 1. Introduction

Herpes zoster is a major health problem that can affect 20 to 30% of population at any age but with a predilection for people aged 50 and over [1,2]. The incidence rate was almost twice as high in immunocompromised patients compared to immunocompetent subjects [3]. In immunocompromised patients, this affection can take the same appearance as that of immunocompetent as it can manifest atypical presentation. The unusual nature may be related to the diffusion of lesions that may be haemorrhagic, ulceronecrotic, chronic or recurrent. Otherwise, uncommon presentation may be secondary to a multiple metameric presentation or neurologic involvement [4,5]. The purpose of our work is to report an atypical manifestation of shingles by its multiple metameric involvements with paresis of the lower left limb.

## 2. Case Report

A 56-year-old patient has had a long past history of systemic lupus erythematosus since 1985 with cutaneous, hematological, neurological and renal involvement. Since the diagnosis of systemic lupus erythematosus was made, this patient has presented infectious complications: breast abscess in 1997 and abscess of the right leg in 2003. In 2012, immunosuppressive therapy based on mycophenolate mofetil was started for stage III and V glomerulonephritis. After corticotherapy and immunosuppressive therapy, evolution was marked by the occurrence of steroid-induced diabetes and other infectious complications: skin abscesses in 2013, high urinary tract infection and condylomata acuminata human papilloma virus (HPV) in 2016. Therefore, faced with viral reactivations to HPV with condylomata acuminata, high urinary tract infections and recurrent skin abscesses, immunosuppressants were stopped in 2016.

On February 2017, the patient had presented unilateral pains of burn type and electric discharges located at the lower left of subacute installation. Seven days later, a necrotic vesicular eruption in the anterior aspect of the leg related to multi-metameric involvement (L3, L4 and L5) was appeared (Figure 1).

The neurological examination revealed a mild deficit in the dorsiflexion of the left foot suggesting a motor neurologic involvement. There was hyperesthesia noted over the left limb in the L3, L4 and L5 dermatome. The deep tendon reflexes were normal even in the lower left limb. The diagnosis of uncommon multi-metameric zoster in the lower limbs complicated by paresis was retained. The patient was treated with acyclovir at a dose of 10 mg / kg / day with local care. For neuropathic pain she had received pregabalin. All the clinical signs had disappeared after three weeks.



Figure 1. Vesicular lesions in the left leg related to zoster

## 3. Discussion

In our patient, the age over 50, lupus erythematosus, diabetes and immunosuppressive therapy were the factors which have contributed to shingles. In our observation, the presentation of herpes zoster was uncommon because 3 dermatomes were involved at the same time. Besides,

there was a neurological impairment attested by a probable distal paresis of the left lower limb. In the literature, some cases of multi metameric involvement of Herpes zoster in the lower limb with segmental paresis have been reported [6,7]. Segmental limb paresis with cutaneous zoster is reported in 3 to 5 % [6].

By EMG, abnormalities were detected in 40 to 50% of cutaneous zoster suggesting that neurologic involvement is not unusual. In our case, the EMG was not judged necessary to do. As reported by Kawajiri et al, motor weakness is more frequent in L1-L4 segments in the lower limbs and paresis usually occurs within 2 weeks of the onset of skin rash. This segmental paresis is rare and usually appears after the eruptive phase [8]. Therefore, in view of any unilateral neuralgia whatever the location, this diagnosis must be mentioned and daily monitoring of the skin condition is required.

In addition, the shingles vaccine not yet marketed in Tunisia would have been an interesting alternative in our patient before putting on immunosuppressive treatment. This vaccine is recommended for patients with systemic disease that may receive immunosuppressive therapy [9].

#### 4. Conclusion

In immunocompromised patients, we must be aware to atypical presentations of zoster infections. Preventive measures have to be taken in order to avoid this complication.

#### Statement of Competing Interests

No conflict of interest.

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