



Introduction

- Many infections can present with fevers and a palmoplantar rash
- It is important for to clinicians to maintain broad differential diagnoses for such presentations to ensure timely diagnosis and management

Case Description

- A Canadian man in his 30s traveled to Mexico as a tourist and is referred to the Tropical Diseases Unit upon return with concern for measles

Timeline after return:

Day 0

- Develops burning pain in hands, feet and around the mouth

Day 2

- Develops sore throat, cough, fever, fluid filled vesicular rash on hands and feet

Day 7-10

- Resolution of fever and rash crusting
- Further history reveal prior measles vaccination and recent sick contact with young child

Day 7-14

- PCR from vesicle positive for enterovirus
- Full symptom resolution

Differentials

Disease	Etiology	Features
Hand Foot and Mouth Disease (HFMD)	Enteroviruses (commonly coxsackie virus)	• Halo of erythema surrounding vesicles • Involves palms, soles, oral mucosa • Dx with PCR
Measles	Measles virus	• Morbilliform, confluent rash • Often spreads from hairline • Associated with cough, coryza, conjunctivitis, fever • Dx with PCR +/- acute and convalescent serology
Mpox	Mpox virus	• Progresses from macules>papules> vesicles>pustules> scabs • Can involve full body • Dx with PCR
Rocky Mountain Spotted Fever (RMSF)	<i>Rickettsia rickettsia</i>	• Macules involving ankles, wrist, hands and feet • Tick borne • Dx with acute and convalescent serology
Secondary Syphilis	<i>Treponema pallidum</i>	• Rash on palms and soles • Dx with serology
Meningococ-cemia	<i>Neisseria meningitidis</i>	• Rapid onset septicemia • Rash start in lower extremities • Dx with culture



Significance

- With global measles and Mpox outbreaks, our case highlights the need for clinicians to recognize potential mimickers of different acute febrile rash presentations, especially in returned travelers
- This is necessary to ensure timely diagnosis, infection control, and public health protection

Conclusion

- It is crucial to take a thorough history and maintain a broad differential for rashes and fever in a returned traveler

References

*Hernández-Martín, A., Mateu-Puchades, A., Carrascosa, J. M., & Torreló, A. (2024). Palmoplantar dermatoses: Diagnostic approach in primary care. *Medicina Clínica (English Edition)*, 162(7), 312–318. <https://doi.org/10.1016/j.medcle.2024.01.007>
*Chauhan, P., Meena, D., Jindal, R., Roy, S., & Shirazi, N. (2023). Analysis of dermoscopic characteristic for the differential diagnosis of palmoplantar psoriasis and palmoplantar eczema. *Indian Journal of Dermatology*, 68(1), 20–25. https://doi.org/10.4103/ijd.ijd_113_20
*Bodemer, C., Steijlen, P. M., Paller, A. S., Mazereeuw-Hautier, J., Rochat, A., Pruszkowski, A., Hohl, D., Fischer, J., Richard, G., & van Geel, M. (2021). Treatment of hereditary palmoplantar keratoderma: A review by analysis of the literature. *British Journal of Dermatology*, 185(1), 24–39. <https://doi.org/10.1111/bjd.19144>
*Anand, V. S. S., Patel, S., & Sharma, R. (2022). A review on palmoplantar keratoderma. *International Journal of Pharmaceutical Sciences and Nanotechnology*, 15(3), 5689–5696.
*Tan, A. J., Archila, M., Mita, C., Edelen, M. O., & Nee, M. H. (2024). Clinical disease measures in palmoplantar pustulosis: A scoping review. *Journal of Investigative Dermatology Innovations*, 4(3), 24755303241253190. <https://doi.org/10.1177/24755303241253190>
*Sánchez, J. L., & Ackerman, A. B. (2008). Nonpustular palmoplantar psoriasis: Is histologic differentiation from eczematous dermatitis possible? *American Journal of Dermatopathology*, 30(1), 12–18. <https://doi.org/10.1097/DAD.0b013e31815f83a3>
*Korman, N. J., Zhao, Y., Li, Y., Bao, Y., Lee, S., & Papp, K. A. (2014). Palmoplantar psoriasis is associated with greater impairment of health-related quality of life compared with moderate-to-severe plaque psoriasis. *Journal of the American Academy of Dermatology*, 71(4), 623–632. <https://doi.org/10.1016/j.jaad.2014.05.043>