

IS THAT A LOTUS FLOWER POD OR YOUR FOOT?: A PRESENTATION OF PITTED KERATOLYSIS

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Background

Pitted keratolysis is a superficial bacterial skin infection most often caused by *Corynebacterium* species. It is found more commonly in tropical and temperate regions with high humidity, although it does have a worldwide distribution. It is characterized by tiny crateriform pits and erosions found on the plantar surface of feet. We present a case of a 19 year old female who presented to our family medicine clinic with features consistent with this diagnosis.

Case Report

A 19 year old female presented to the clinic with the complaint of “holes at the bottom of my feet”. She stated that there were tiny holes on the heels of both feet that would expand when they got wet. She first noticed them 3 days ago after getting out of the shower. She also complained of bilateral heel pain that started around the same time. She denied any trauma/injury to feet. Denies bleeding, crusting, itching, erythema, or swelling to area. The patient works as a waitress and was recently in Mexico earlier in the month to visit family. On physical exam, there were numerous tiny, punched out lesions on the soles of her feet. They were white in color. The holes became more pronounced when soaked with water.

Vitals

- Blood pressure: 112/60
- Heart Rate: 100
- Temperature: Afebrile
- Weight: 165 lbs
- Height: 64.5 inches

Examples



References

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Discussion

- We diagnosed our patient with pitted keratolysis. She had the key characteristic of white, punched out pits located on the soles. The pits are caused by destruction of the stratum corneum layer of the skin by protease enzymes. The bacteria thrive in moist environments. Excessive sweating plus wearing enclosed shoes/tight socks for long periods of time is the perfect combo for these bacteria to multiply. The lesions are usually asymptomatic but they can cause heel pain when walking and be malodorous. They often look more pronounced when wet. If not treated, then the pits can grow and coalesce to form craters. Treatment is with topical antibiotics and antiseptics. The most commonly used antibiotics are clindamycin, erythromycin, and mupirocin. We gave our patient topical mupirocin which cleared up the infection. It is important to note that it can take up to 4 weeks for the infection to resolve with antibiotics. Patients should be advised to wear open toed shoes as much as possible, keep feet dry, wash feet with soap/antiseptic twice daily, and wear sweat absorbent socks.

Conclusion

- Pitted keratolysis is not an uncommon skin infection, however, many physicians may not be aware of its existence. If not treated then the condition can potentially last for years with multiple remissions and exacerbations. It is important to be aware of its various clinical manifestations and treatment options.