

## Case #92

NAME Educational Activities Committee

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Image 1



Image 2

A 28-year-old emaciated man was found unresponsive in a tent in the woods with drug paraphernalia at the scene. He was pronounced by EMS without intervention. At autopsy, multiple spots and nodules were noted on the soles of the feet and palms of the hands (Images 1 & 2). What is the most likely cause of death associated with these findings?

- A. Secondary Syphilis
- o B. Intravenous drug abuse
- o C. Hand foot and mouth disease
- o D. Rocky Mountain Spotted Fever

## Answer...

Answer: B - Intravenous drug abuse

The photographs depict Osler's nodes and Janeway lesions on the palms and soles of a decedent with infective endocarditis secondary to intravenous drug abuse. Intravenous drug abuse is a predisposing factor to infective endocarditis. Figure.3 depicts the vegetation on the decedent's aortic valve. These vegetations embolize and cause septic microthrombi which can cause microabscesses in the dermis with thrombosis of small vessels in the palm and soles resulting in Janeway lesions.

Grossly, Janeway lesions present as irregular, non-tender hemorrhagic macules located on the palms, soles, thenar and hypothenar eminences of the hands, and plantar surfaces of the toes. Osler's nodes are red-purple, slightly raised, tender lumps, often with a pale center.

These appeared in 40–90% cases of infective endocarditis in the pre antibiotic periods; however, recent prospective data report the incidence to be 3–5%.

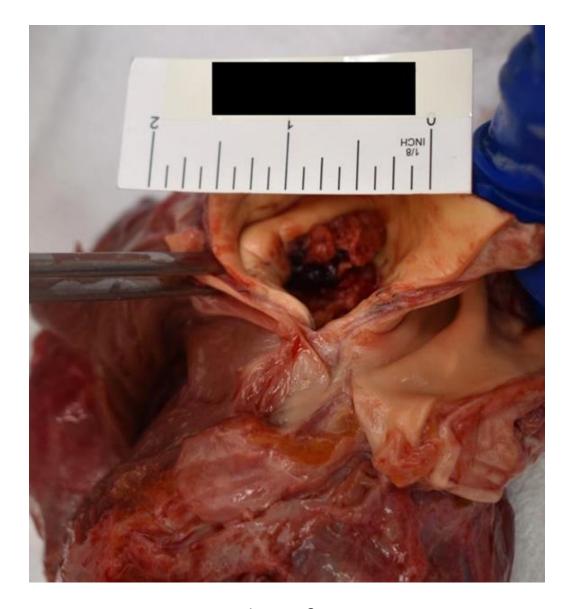


Image 3

# Other responses:

#### A. Secondary Syphilis

Secondary Syphilis presents with lesions of the hands and feet as well, making this a tricky question. Most of these present as larger lesions rather than the smaller macules noted above. The red-brown spots of secondary syphilis are sometimes scaly or rough but not always. Condyloma lata (papulosquamous eruption), macular rash, diffuse lymphadenopathy, headache, myalgia, arthralgia, pharyngitis, hepatosplenomegaly, alopecia, and malaise are other symptoms.

#### C. Hand, foot and mouth disease

Hand, foot, and mouth disease can also present with a rash involving the palms and soles but it usually occurs in infants and children and also involves the mouth. It is caused by a virus and is not associated with intravenous drug abuse.

#### D. Rocky Mountain Spotted Fever

Rocky Mountain Spotted Fever also presents with rash of the palms and soles but it should also be present over the entire body and it is associated with a tick bite not intravenous drug abuse.

### References

- Beaulieu, A., & Rehman, H. U. (2010). Janeway lesions. CMAJ: Canadian Medical Association journal = journal de l'Association medicale canadienne, 182(10), 1075. https://doi.org/10.1503/cmaj.091528
- https://emedicine.medscape.com/article/216650-clinical?form=fpf
- Guerra AM, Orille E, Waseem M. Hand, Foot, and Mouth Disease. [Updated 2023 Mar 4]. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2023 Jan-. Available from: https://www.ncbi.nlm.nih.gov/books/NBK431082/
- Kumar, Vinay. "Robbins and Cotran pathologic basis of disease." Philadelphia, PA: Elsevier/Saunders, 2014.
- Hirai T, Koster M. Osler's nodes, Janeway lesions and splinter hemorrhages. BMJ Case Rep. 2013 Sep 6;2013:bcr2013009759. doi: 10.1136/bcr-2013-009759. PMID: 24014557; PMCID: PMC3794095.
- https://dermnetnz.org/topics/osler-nodes-and-janeway-lesions