Subungual Abscess Caused by Staphylococcus lugdunensis

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Although Staphylococcus lugdunensis is a constituent of the normal human skin flora, it does have pathogenic potential. Infections can range from severe (eg, endocarditis, osteomyelitis) to less invasive skin and soft-tissue infections. We report a case of a subungual abscess in a patient with S lugdunensis infection.

S taphylococcus lugdunensis was first described as a member of the coagulase-negative staphylococci species by Freney et al in 1988. Although S lugdunensis is part of the normal human skin flora, it does have the ability to cause serious infections, such as endocarditis.2,3 Staphylococcus lugdunensis also can cause skin and soft-tissue infections in the groin and inguinal region as well as the lower extremities.4,6 We report a case of an isolated subungual abscess caused by S lugdunensis without any sign of paronychia.

Case Report
A 40-year-old woman presented to the dermatology clinic with throbbing pain and pressure in the left thumbnail of 1 day's duration. The patient reported traumatic separation of the left thumbnail from the nail bed approximately 1 month prior to presentation. The pain was so intense that she was unable to sleep. She denied any redness or swelling in the tissue around the nail.

On physical examination, periungual erythema and swelling were not appreciated. The left thumbnail was tender to palpation. A centrally located pocket of greenish discoloration was noted beneath the nail plate. A small hole was created in the left thumbnail over the greenish area using a CO2 laser at a setting of 8 W. Pus was expressed from the hole and a culture of the fluid was taken. The patient noted immediate relief of pain and pressure. The patient was put on ciprofloxacin hydrochloride (500 mg twice daily) under the impression that the offending organism was Pseudomonas aeruginosa. The culture came back 4 days later and was positive for S lugdunensis.

Comment
Staphylococcus lugdunensis historically has been a cause of invasive infections including but not limited to infective endocarditis, brain abscess, peritonitis, osteomyelitis, intravascular catheter infections, and sepsis.2,7 This species of coagulase-negative staphylococci usually is isolated to the groin and inguinal region as well as the lower extremities, including the web and nail bed of the first toe and the pelvic region. Staphylococcus lugdunensis has been reported as a culprit in cases of skin and soft-tissue infections,5,7,8 which commonly manifest as abscesses on the breasts or pelvis, wound infections, and infections of the sebaceous glands.5,9 A 2009 study administered in Denmark reported paronychia as a common manifestation of S lugdunensis infection.4
Our case is unique in that the abscess showed no periungual involvement, which is contrary to expectations based on the current literature. In our case, the CO₂ laser was a curative and symptomatic treatment.

**Conclusion**

*Staphylococcus lugdunensis* is a normal constituent of human skin flora but has the potential to cause serious infections. This organism also should be included in the differential diagnosis of minor skin infections.

**REFERENCES**


