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THE BRIEF CASE

Closing the Brief Case: A Case of Prosthetic Valve Endocarditis Due to *Lodderomyces elongisporus*

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ANSWERS TO SELF-ASSESSMENT QUESTIONS

1. What organism is *Lodderomyces elongisporus* closely related to and was historically misidentified as using biochemical techniques?
    a. *Staphylococcus aureus*
    b. *Candida parapsilosis*
    c. *Candida albicans*
    d. *Candida tropicalis*

    Answer: b. While *L. elongisporus* is closely related to *C. albicans* and *C. tropicalis*, it is most closely related to *C. parapsilosis* and is often misidentified biochemically as *C. parapsilosis*.

2. Which of the following descriptions is correct for identification of *Lodderomyces elongisporus*?
    a. Colonies appear as cream-colored colonies with colony projections on CNA
    b. Sequencing cannot readily differentiate between *L. elongisporus* and *Candida parapsilosis*
    c. Colonies develop a distinct turquoise color on CHROMagar *Candida* medium
    d. Colonies develop a pink or lavender color on CHROMagar *Candida* medium

    Answer: c. *Lodderomyces elongisporus* colonies develop a distinct turquoise color on CHROMagar *Candida* medium. *L. elongisporus* appears as cream-colored, opaque colonies without colony projections on nonchromogenic medium. *L. elongisporus* is often misidentified as *C. parapsilosis* by biochemical assays and biochemical-based identification systems. *L. elongisporus* is readily identified by sequencing and molecular techniques.

3. Which of the following is a risk factor for *Lodderomyces elongisporus* infection?
    a. Intravenous drug use
    b. Catheterization
    c. Immunosuppression
    d. All of the above

    Answer: d. *Lodderomyces elongisporus* is an emerging pathogenic yeast associated with catheter-related and bloodstream infections. *L. elongisporus* has been recovered from infections in persons who inject drugs and in patients with underlying health conditions, such as immunosuppression.

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TAKE-HOME POINTS

- *Lodderomyces elongisporus* is an emerging pathogenic yeast associated with catheter-related infections. It is normally found associated with fresh fruits and fruit concentrates and insects.
- Risk factors for *Lodderomyces elongisporus* infection include intravenous drug use and catheterization. As *L. elongisporus* is often misidentified by biochemical identification systems as *C. parapsilosis*, the risk factors for the two organisms may be the same.
- *Lodderomyces elongisporus* is often misidentified by biochemical-based identification assays as *C. parapsilosis*, as the two species are physiologically similar. *L. elongisporus* can be readily differentiated from *C. parapsilosis* by its characteristic turquoise color on CHROMagar, matrix-assisted laser desorption ionization–time of flight mass spectrometry (MALDI-TOF MS) and by sequencing approaches.
- There are no established breakpoint values for *L. elongisporus* antifungal susceptibility testing. *L. elongisporus* appears relatively susceptible to antifungals based on published MICs.