Closing the Brief Case: Mycoplasma hominis Extragenital Abscess
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Title: Closing the Brief Case: *Mycoplasma hominis* Extragenital Abscess

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SELF-ASSESSMENT QUESTIONS

1. Which of the following condition is associated with *Mycoplasma hominis* extragenital infections?
   a. Neutropenia
   b. Hypogammaglobulinemia
   c. Obesity
   d. Diabetes

   Answer: b. *M. hominis* extragenital infections classically occur in patients who present hypogammaglobulinemia, have received a solid organ transplant, or have recently undergone surgery (postoperative infections). There is no literature precedent for an association between neutropenia, obesity or diabetes and *M. hominis* extragenital infections.

2. Which of the following statements concerning *Mycoplasma hominis* identification is correct?
   a. *M. hominis* is unable to grow on blood or chocolate agar under 5% CO₂.
   b. *M. hominis* is undetectable by Gram staining.
   c. *M. hominis* is absent from MALDI-TOF MS databases.
   d. *M. hominis* produce large colonies (> 1 mm) on mycoplasma media.

   Answer: b. *M. hominis* is undetectable by Gram staining because it lacks a cell wall. *M. hominis* can grow on blood or chocolate agar after prolonged incubation. It is present in MALDI-TOF MS databases, but identification can be difficult due to the small size of the
colonies. Even on mycoplasma-specific media, *M. hominis* colonies only grow to approximately 0.2 mm.

3. *Mycoplasma hominis* is naturally resistant to which class of antibiotics?
   a. Tetracyclines
   b. β-lactams
   c. Lincosamides
   d. Fluoroquinolones

   Answer: b. As it lacks a cell wall, *M. hominis* is naturally resistant to β-lactams, which target cell wall synthesis. *M. hominis* is generally susceptible to tetracyclines, clindamycin, and levofloxacin/moxifloxacin, although acquired resistance has been reported.

**Take-Home Points**

- *M. hominis* is an underdiagnosed cause of abscesses in immunocompromised individuals and postoperative patients.
- *M. hominis* grows as pinpoint-sized colonies on blood agar after prolonged incubation under 5% CO2.
- *M. hominis* is undetectable by Gram staining and is resistant to all β-lactams due to the absence of a cell wall.