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Closing the Brief Case: *Mycoplasma hominis* Extragenital Abscess

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

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18 **SELF-ASSESSMENT QUESTIONS**

19 1. Which of the following condition is associated with *Mycoplasma hominis*
20 extragenital infections?

- 21 a. Neutropenia
- 22 b. Hypogammaglobulinemia
- 23 c. Obesity
- 24 d. Diabetes

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

30 2. Which of the following statements concerning *Mycoplasma hominis* identification
31 is correct?

- 32 a. *M. hominis* is unable to grow on blood or chocolate agar under 5% CO₂.
- 33 b. *M. hominis* is undetectable by Gram staining.
- 34 c. *M. hominis* is absent from MALDI-TOF MS databases.
- 35 d. *M. hominis* produce large colonies (> 1 mm) on mycoplasma media.

36 Answer: b. *M. hominis* is undetectable by Gram staining because it lacks a cell wall. *M.*
37 *hominis* can grow on blood or chocolate agar after prolonged incubation. It is present in
38 MALDI-TOF MS databases, but identification can be difficult due to the small size of the

39 colonies. Even on mycoplasma-specific media, *M. hominis* colonies only grow to
40 approximately 0.2 mm.

41 3. *Mycoplasma hominis* is naturally resistant to which class of antibiotics?

42 a. Tetracyclines

43 b. β -lactams

44 c. Lincosamides

45 d. Fluoroquinolones

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

50 **Take-Home Points**

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