



Letter to the Editor

Letter to the Editor: False-positive Cultures After Native Knee Aspiration: True or False

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To the Editor,

The study by Jennings and colleagues [1] is important because it shows that with good harvest and culturing techniques, specimens obtained from healthy knees are likely to be culture-negative.

Two points may be worthy of consideration: First, the term “false-positive” seems problematic. If a culture is positive, it is positive, unless the

laboratory technician recorded the result incorrectly. Frequently, however, the term “false-positive” is used to refer to a positive culture when the observer does not believe the cultured bacteria originated from the specimen submitted. Unfortunately, unless perfect harvesting, handling, and culturing methods are used, one cannot be absolutely sure whether cultured bacteria originated from the joint, the air, the surgical gloves, the specimen container, or the laboratory. For this reason, it is important to know the results of control culture specimens to verify the sterility of the environment and specimen management. As an example, Mook and colleagues [2] found a 13% positive *Propionibacterium* culture rate for a 1/2 × 1/2 cm square of sterile sponge that was placed in a sterile specimen container and set aside during shoulder surgery. These cultures were positive (not falsely positive), although the source of the cultured organisms was not clear.

Second, *Propionibacterium* are anaerobic organisms now recognized

as being pathogenetic in arthroplasty and spine surgery. In that these organisms are sensitive to kanamycin and vancomycin, one wonders if the use of kanamycin and vancomycin in the anaerobic media used in this study may have interfered with the ability of these cultures to detect *Propionibacterium*.

Thanks to the authors for their well-done study.

References

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(RE: Jennings JM, Dennis DA, Kim RH, Miner TM, Yang CC, McNabb DC. False-positive cultures after native knee aspiration: True or false. *Clin Orthop Relat Res.* 2017;475:1840-1843).

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