Letters to the Editor

Pseudo-outbreak of Blastomycosis Associated With Contaminated Bronchoscopes

To the Editor:

Problems of contamination of endoscopes and bronchoscopes with the use of automated washing machines have been reported with increasing frequency. Outbreaks of infectious and pseudo-outbreaks have been reported.[1] We previously have observed a pseudo-outbreak with multiply resistant ***Pseudomonas aeruginosa*** from failure of sterilization of the sampling channel of one bronchoscope.[2] We report here another pseudo-outbreak with an unusual pathogen, ***Blastomyces dermatitidis.***

The index case was a male who presented with bilateral pulmonary infiltrates. A bronchoscopy was performed Friday afternoon, and the initial stained preparation showed yeast forms consistent with ***B dermatitidis*** (Figure 1). Subsequently, ***B dermatitidis*** grew from cultures obtained at bronchoscopy. On the subsequent Monday morning, the two initial patients undergoing bronchoscopy also were found to be positive for yeast forms morphologically resembling ***B dermatitidis*** on stained smears (Figures 2 and 3). For neither of these cases was the clinical scenario consistent with ***Blastomyces*** infection. ***B dermatitidis*** did not grow from either specimen.

A review of bronchoscopy procedures revealed that the same bronchoscope used on the Friday afternoon case was used for the two individuals on Monday morning. No other bronchoscopies were performed with this endoscope. Procedures for bronchoscope cleaning and disinfection between cases included manual cleaning of the bronchoscope followed by high-level disinfection with 2% gluteraldehyde (Cidex, Johnson and Johnson, At= brook, Ontario). The bronchoscope underwent ethylene oxide sterilization after the second case on Monday. No further cases occurred.

In this instance, the potential for patient cross-infection was not a concern, as the yeast form of ***B dermatitidis*** is not infectious to humans. In addition, subsequent failure to grow the organisms suggested that the chemical cleaning had rendered the yeast non-viable.



FIGURE 1. Yeast forms consistent with *B* dermatitidis.



FIGURE 2. Smear from first patient undergoing bronchoscopy.

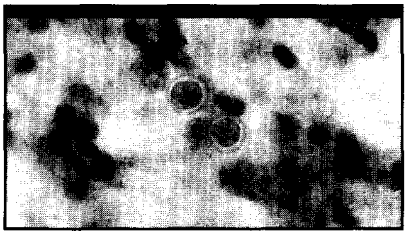


FIGURE 3. Smear from second patient undergoing bronchoscopy.

It would appear, however, that mechanical cleaning to remove debris was ineffective.

This pseudo-outbreak is another example of problems relating to appropriate cleaning and disinfection of bronchoscope between procedures. It suggests a problem in the procedure of initial mechanical cleaning and failure to remove debris from the sampling port by the washer. Design modifications to facilitate optimal mechanical cleansing and disinfection/sterilization are needed.

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