

**TITLE:** POSTOPERATIVE MYCOBACTERIOSIS AFTER BICHECTOMY

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**ABSTRACT:**

Postoperative infections caused by mycobacteria are being reported at increasing rates after aesthetic surgical procedures, mainly breast implants and liposuction. Although microorganisms from the skin microbiota are generally isolated as central cause of surgical site infection, rapidly growing mycobacteria (RGM) have drawn a lot of attention. Group IV stands out as the most important group of atypical mycobacteria, according to the Runyon classification, with *M. abscessus* complex, *M. chelonae* and *M. fortuitum* group pointed out as the RGM most frequently involved in skin and soft tissue infections. The objective of this abstract is to report a singular case of postoperative infection and contribute to the clinical-scientific knowledge about possible infrequent microorganisms in the microbiology laboratory routine. A 22-year-old woman developed a solid nodular formation in the left face, after bichectomy surgery realized in a dental clinic. Aerobic bacteriology culture and bacterioscopy were performed in a facial aspirated specimen, as per medical request. After 72h of incubation at 35°C±1°C in CO<sup>2</sup> incubator, the colonies grown on sheep blood and chocolate agar plates were identified by mass spectrometry VITEK-MS (bioMérieux™) and the identification showed compatibility of 99.9% for the *M. fortuitum* group. With growth on blood agar, there was development of dry and slightly wrinkled colonies, where a smear of was performed using modified Ziehl-Neelsen staining and structures compatible with acid-alcohol resistant bacilli were visualized. After this finding, besides the doctor didn't order any specific culture for mycobacteria, the primary specimen was inoculated in Löwenstein Jensen medium, incubated at 35°C±1°C in CO<sup>2</sup> incubator. To confirm this result by molecular methodology, it was sent to LACEN (Central Laboratory) for processing using the methodology of restriction enzyme (PRA), corroborating the previously identification and indicating the detection of *M. peregrinum*/*M. porcinum*/*M. septicum* from the *M. fortuitum* group. Infections with nontuberculous mycobacteria after bichectomy surgery in dental clinics have rarely been described and the lack of clinical suspicion and a clear clinical manifestation makes diagnosis challenging. This reinforces the importance of the clinical microbiologist's critical and investigative look to help choose the correct therapy and a favorable prognosis for the patient.

**Keywords:** bichectomy, *Mycobacterium fortuitum*; soft tissue infection, rapidly growing mycobacteria (RGM)