

Atypical infection after silicone implant in breast implants: a rare case report involving the genus *Nocardia* spp.

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Nocardiosis is a severe, opportunistic inflammatory infection that usually affects immunocompromised patients. The most common form of the disease refers to chronic lung infection after inhalation of aerosols from the environment and, in less frequent occurrence, may occur through trauma-induced local abscesses. Thus, our objective is to describe a rare case report of infection by the genus *Nocardia* spp after silicone implant in mammary prostheses. The 46-year-old female patient had an intense and atypical infection, encapsulated in the right breast, after a surgical procedure to implant silicone. Tissue excision was performed and the material was collected for microbiological and genetic diagnosis. After the incubation period, the growth of rough and dry colony was started in Lowenstein-Jensen medium, partially acid resistant alcohol was present through the modified Ziehl-Neelsen staining, with filamentous and Gram-branched bacilli. The microorganism was submitted to three protocols for identification by mass spectrometry MALDI-TOF MS, but without success, probably due to the scarcity of the database for this microorganism in the Software. Regarding the genetic diagnosis, the 16S ribosomal gene was sequenced to identify the bacterial genus. From the comparison of the sequence obtained with the database NCBI-BLAST, the existence of bacteria of the genus *Nocardia* spp was confirmed. This case report serves as an alert to health professionals for a type of atypical infection in secretion samples after breast implants and for future studies on improvements in the techniques of commercial identification, cultivation and susceptibility testing for *Nocardia* spp.