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Atypical mycobacterial infection in anophthalmic sockets with porous orbital implant exposure

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ABSTRACT

Purpose: To investigate the clinical features and risk factors of atypical mycobacterial infection in anophthalmic sockets with porous orbital implant exposure.

Design: Case-control study.

Methods: The medical records of all patients who had undergone surgical correction of porous orbital implant exposure were consecutively reviewed, and the patients were stratified as those with atypical mycobacterial infection (AM infection group) and others (non-AM group).

Results: Five and 21 patients were included in the AM infection and non-AM groups, respectively. All patients of the AM infection group had a peg or motility coupling post (MCP) and showed implant exposure around it. Following up on implant exposure, two patients abruptly presented with severe conjunctival injection and new lesions such as erythematous nodules or eyelid masses. They underwent immediate orbital implant exchange and atypical mycobacterial infection was diagnosed. Three patients who were not suspected of having infection underwent surgery for orbital implant exposure. Results revealed erythematous eyelid nodule or recurrent exposure shortly after surgery and patients were diagnosed with atypical mycobacterial infection. In the non-AM group, 7 (33.3%) patients underwent insertion of a peg or MCP. Statistical analysis showed that the insertion of a peg or MCP was the only risk factor showing a significant difference between the two groups.

Conclusions: The most important underlying risk factor for atypical mycobacterial infection in the anophthalmic socket is thought to be peg- or MCP-related exposure of the porous orbital implant. Surgical removal of the infected orbital implant and long-term antibiotic medication are needed for treatment.