SUBCONJUNCTIVAL SILICONE OIL – PRESENTATION, HISTOLOGY AND SURGICAL MANAGEMENT

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Objective To describe the clinical and histological findings in subconjunctival silicone oil leakage, and a surgical technique for its management.

Method A 60-year-old woman with a chronic macula-off detachment underwent two pars plana vitrectomies four months apart. The silicone oil inserted during the first was replaced by heavy silicone (Oxane HD) at the second, with unsutured sclerostomy ports. One month later silicone oil cysts were noted under the conjunctiva.

Results Symptoms were grittiness, dryness and heaviness with occasional severe pain. Multiple oil globules 0.2 – 2mm in diameter were tightly packed beneath the conjunctiva in two quadrants, extending from limbus to peripheral bulbar conjunctiva.

Tenons tissue containing silicone globules was isolated by dissecting planes superficially, immediately beneath the conjunctival basement membrane, and deep, immediately above the sclera. The tissue sheet was mobilised and excised posteriorly at the junction with healthy tissue.

Histology revealed sheets of connective tissue with densely packed tiny lacunae, and intermittent large lacunae with fibrous walls. Inflammatory cells were scattered in between.

Discussion Injectable medical grade silicone oil is only approved for intravitreal use. When injected into breasts, buttocks or face, or following implant rupture, it can migrate to subcutaneous or extraperitoneal locations. In inflammatory conditions it can cause inflammation, contracture, calcification, embolism and death. It is difficult to remove surgically as it is viscous and adherent, requiring surfactants.

Conclusion Leakage of silicone oil from a sclerostomy is a rare complication of intravitreal use. It densely infiltrates subconjunctival tissues, causing irritation and heaviness. With careful dissection, the tissues can be removed en bloc with resolution of symptoms.

METHODS AND ANALYSIS


REFERENCE