

Treatment of Hypergranulation Tissue following Robotic Peritoneal Flap Vaginoplasty

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Background: Hypergranulation tissue (HGT) is recognized as a common complication after vaginoplasty, however it is not well represented in the literature. Silver nitrate is a common, first-line treatment for HGT. In this study, we examine silver nitrate compared to in-office curettage. We also quantify the timeline of HGT presentation and resolution after robotic peritoneal flap vaginoplasty.

Methods: Following IRB approval, a retrospective chart review was performed to identify all patients who underwent robotic peritoneal flap vaginoplasty by the two senior authors between September 2017 and November 2021. All patients had routine pelvic and speculum exams following vaginoplasty. Hypergranulation tissue location, presenting symptoms, treatment type, treatment dates, vaginal dilator diameter and depth, and dilation cessation were collected.

Results: Of the 351 patients who underwent primary robotic peritoneal flap vaginoplasty during the study period, 272 patients were included. 207 (76%) patients developed hypergranulation tissue post-vaginoplasty. 101 patients initially presented with HGT in the first 90 days, 60 presented between 90-180 days, 33 between 180-365 days, and 13 after 365 days. Average POD of presentation was earlier for introital and external HGT (60.8 days and 61.3 days, respectively), compared to internal HGT (176.9 days). Presenting symptoms included bleeding (43.5%), odor (40.6%), discharge (65.7%), and persistent pain (16.4%). 45 patients were treated with silver nitrate and 74 with curettage. Mean number of treatments received was lower among the curettage group (1.6 versus 1.9, $P = 0.023$). Mean time to resolution was lower among the silver nitrate group (147.9 days versus 261.4 days, $P = 0.0012$). Having HGT was associated with a lesser mean vaginal dilator depth at postoperative days 90 ($P = 0.008$), 180 ($P = 0.043$), and 360 ($P = 0.0005$).

Conclusions: Hypergranulation tissue is not an uncommon finding after vaginoplasty. Bleeding, odor, discharge, and pain are important signs that should be recognized. Long term follow-up with routine speculum exams and timely treatment can help improve postoperative quality of life. In-office curettage is a viable treatment option for hypergranulation tissue in vaginoplasty patients.