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Does plastic surgical consultation improve the outcome of patients undergoing radical vulvectomy for squamous cell carcinoma of the vulva?

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Highlights

- Plastics-assisted vulvectomy closure significantly improves margin outcomes in tumors ≥3 cm.
- Plastics-assisted closure does not independently impact complications.
- History of radiation therapy significantly increases complications.

Abstract

Objectives: To analyze margin status and prognostic factors for complications in patients undergoing vulvectomy for invasive squamous cell cancer (iSCC) with and without plastics-assisted closure.

Methods: Demographic and clinical data were collected on 94 patients with iSCC who underwent vulvectomy between 2004 and 2013. All pathology slides were re-reviewed by two gynecologic pathologists. Data were analyzed using XLSTAT-Prov2014.2.02.

Results: Of 88 eligible patients, 15(17%) had plastics-assisted vulvar closure and 73(83%) did not. There were significantly more patients in the plastics group with recurrent disease (53% v 10%) and history radiation therapy prior to surgery (40% v 5%). Plastics-assisted closure was associated with larger tumors (3.73cm v 2.03cm, $p<0.01$) and a higher frequency of adequate margins (53% v 29%, $p=0.06$). For tumors ≥3.0cm, plastics-assisted closure was significantly associated with adequate margins (44% v 6%, $p=0.03$). Prior radiation use was associated with plastics-assisted closure, larger tumors, older age, and recurrent disease. Complications occurred in 36 patients (41%) and significantly more occurred with plastics-assisted closure (67% v 36%, $p=0.04$). On multivariate analysis including age, tumor size, recurrent disease, plastics-assisted closure, and history of radiation, only history of radiation therapy was a significant predictor of complications (OR=17, 95%CI 2.05-141.35; $p=0.01$).

Conclusions: Plastics-assisted vulvectomy closure was more often utilized in cases involving past radiation therapy and larger tumors. Plastics-assisted closure significantly increased the frequency of adequate margins in tumors ≥3cm and did not impact complications.