

Vertical rectus abdominis myocutaneous flap for vaginal reconstruction after radical pelvic surgery for Stage II vaginal carcinoma

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Summary

Primary carcinomas of the vagina are uncommon, occurring only 2-3% of all gynecological malignancies. In women with early stage of disease, primary surgery, consisting of radical vaginectomy (plus hysterectomy in patients with tumors involving the upper vagina) and systematic dissection of lymphatic drainage of tumor, is a valid option. In these patients, a rectus abdominis myocutaneous (RAM) flap may be favorably used for vaginal reconstruction during radical pelvic surgery. Here we describe a case of Stage II vaginal carcinoma treated with radical pelvic surgery and vertical-RAM (V-RAM) flap reconstruction.

Key words: Vaginal carcinoma; Oncopelvic surgery; Reconstruction; V-RAM flap.

Introduction

Primary carcinomas of the vagina are uncommon, occurring in only 2-3% of all gynecological malignancies. Squamous cell carcinoma (SCC) is the most common histologic type (80-92%) [1]. In women with early stage of disease, primary surgery, consisting of radical vaginectomy (plus hysterectomy in patients with tumors involving the upper vagina) and systematic dissection of lymphatic drainage of tumor, is a valid option [2]. In these patients, a rectus abdominis myocutaneous (RAM) flap may be favorably used for vaginal reconstruction during radical pelvic surgery [3, 4]. A case of Stage II SSC of the vagina treated with radical pelvic surgery and vertical-RAM (V-RAM) flap reconstruction is described.

Case Report

A 52-year-old menopausal woman with the complaint of vaginal bleeding was referred to our oncology department. A warty, necrotized, exophytic mass of the vagina, originating from the right fornix and anterior vaginal wall and extending to the middle part of the anterior vaginal wall was found. Biopsy specimen of the vaginal mass showed squamous cell carcinoma (SCC) of the vagina. Preoperative magnetic resonance imaging (MRI) revealed a 4.5 x 3.5 x 3 cm mass originating from the

right-anterior vaginal wall and involving the subvaginal tissue but not extending to the pelvic wall. She underwent radical vaginectomy and Wertheim hysterectomy, and bilateral pelvic lymphadenectomy. Then a V-RAM flap reconstruction was performed (Figure 1a-b-c). The histopathological finding demonstrated SCC of the vagina with clear margins and the absence of metastasis to the lymph nodes. The clinical-pathologic stage (FIGO) was Stage II. There were no major flap or donor area complications in the postoperative period. Favorable aesthetic and functional outcomes were observed after adjuvant radiotherapy in the six months follow-up (Figure 1d).

Discussion

Vaginal reconstruction after cancer resection is a difficult challenge because of the functional, anatomical and aesthetic importance of this region. Increased use of adjuvant radiotherapy and chemotherapy not only demands uncomplicated wound healing but also needs healthy, well-vascularized tissue. Successful management of vaginal reconstruction patients requires a multidisciplinary approach. The oncologist, gynecologist and reconstructive surgeon play an important role in the overall treatment plan. Sexual function and restoration of the pelvic floor can most reliably be achieved by planning and choosing the appropriate flap. Today there are various techniques to be used for vaginal reconstruction. More recently RAM flaps have become a reliable and advantageous procedure [3].

In conclusion, we believe the use of pedicled V-RAM flaps for vaginal reconstruction in radical oncopelvic surgery should be considered owing to the low specific morbidity and postoperative complication rate. This procedure may also reduce secondary re-interventions.

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Fig. 1a



Fig. 1b



Fig. 1c



Fig. 1d



Figure 1. — a) Perineal view of the patient after radical pelvic surgery, b-c) Steps in the creation of a VRAM flap, d) Perineal view of the patient six months after operation.

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