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Impact of radical operative treatment on the quality of life in women with vulvar cancer – A retrospective study

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Abstract

Objectives: For patients undergoing vulva surgery the quality of life (QoL) is generally accepted as an important outcome parameter in addition to long-term survival, mortality and complication rates. Less radical operative treatment can reduce morbidity and thereby improve quality of life. This study focuses on outcome in terms of QoL in patients comparing wide local excision (WLE) with radical vulvectomy and waiver of lymphonodectomy (LNE) with inguinofemoral lymphonodectomy.

Methods: In a retrospective single-center study from 2000 to 2010, 199 patients underwent surgery for vulvar cancer. To assess QoL, the EORTC QLQ-C30 and a tumor-specific module questionnaire were sent to all patients in the follow-up period.

Results: Women who underwent WLE have a superior QoL with regard to global health status and physical, role, emotional and cognitive functioning than those who underwent radical vulvectomy. Less radical surgery also implies less fatigue, nausea/vomiting, pain, insomnia, appetite loss, diarrhea and financial difficulties. After radical vulvectomy 89% of patients have sexual complications.

Conclusion: Radical operative treatment, such as radical vulvectomy, causes deterioration in the QoL of these patients. An individualized, less radical surgery must be the aim in the treatment of vulvar cancer.

Keywords: Vulvar cancer; Quality of life; Radical vulvectomy; Lymphonodectomy; EORTC QLQ-C30; Disease free survival; Overall survival

Introduction

Vulvar cancer is the fourth most common gynecologic cancer (following cancer of the uterine corpus, ovary and cervix) and comprises five percent of malignancies of the female genital tract.[1] Vulvar cancer most frequently occurs in women between 65 and 75 years of age[2]; however, an increase in vulvar cancer has been noted over the past decade, especially in younger women (35–65 years of age), attributable to human papillomavirus (HPV) infection.[3,4] Surgical resection is the gold standard of treatment and should completely remove the tumor. Initially, radical vulvectomy with bilateral lymphonodectomy (LNE) was recommended as the standard treatment for most patients. Currently, a more individualized and less radical surgery (wide local excision (WLE)) instead of vulvectomy and sentinel lymph node biopsy (SLN) instead of LNE is recommended to minimize surgery-related morbidity, such as lymphedema, painful legs or recurrent erysipelas. The pT(NM) classification and the associated surgery is given in Table 1. Fig. 1 shows the standard of LNE.

Besides basic data on morbidity, mortality and survival, the quality of life (QoL) is generally accepted as an additional outcome parameter in patients undergoing oncologic surgery. Quality of life is a multidimensional concept which is defined as a person's view of life and his/her satisfaction with life.[5,6] QoL for patients is defined as "the extent to

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Table 1
Staging vulvar cancer, TNM and International Federation of Gynecology and Obstetrics, FIGO.

Primary tumor (T)			
TNM categories	FIGO stages	Definition	Surgery
TX		Primary tumor cannot be assessed	
T0		No evidence of primary tumor	
Tis		Carcinoma in situ	WLE, no LNE
T1a N0 M0	IA	Lesions 2 cm or less in size, confined to the vulva or perineum and with stromal invasion 1.0 mm or less	WLE, no LNE
T1b N0 M0	IB	Lesions more than 2 cm size *or* any size with stromal invasion more than 1.0 mm, confined to the vulva or perineum	WLE, (SLN) LNE ipsilateral
T2/T3 N0 M0	II	Tumor of any size with extension to adjacent perineal structures (lower/distal 1/3 urethra, lower/distal 1/3 vagina, anal involvement)	Modified radical vulvectomy (hemivulvectomy, anterior or posterior vulvectomy), (SLN) LNE bilateral
T3 N0 or T1-T3 N1 M0	III	Tumor of any size with or without extension to adjacent perineal structures (lower third of urethra/vagina/anus) with positive inguinofemoral nodes	Modified radical or radical vulvectomy with inguinal and femoral node dissection. Radiation therapy to the pelvis
T1/T2/T3 N1a/N1b M0	IIIA	With 1 lymph node metastasis (≥5 mm) or with 1–2 lymph node metastases (<5 mm)	
T1/T2/T3 N2a/N2b M0	IIIB	With 2 or more lymph node metastases (≥5 mm) or with 3 or more lymph node metastases (<5 mm)	
T1/T2/T3 N2c M0	IIIC	With positive nodes with extracapsular spread	
T4 N0 – N2 M0	IVA	Tumor of any size with extension to any of the following: upper/proximal 2/3 urethra, upper/proximal 2/3 vagina, bladder mucosa, rectal mucosa or fixed to pelvic bone	Neoadjuvant chemoradiation and selected surgery, no LNE
any T any N M1	IVB	Tumor has spread to distant organs or lymph nodes	Neoadjuvant chemoradiation and selected surgery, no LNE

which one's usual or expected physical, emotional and social well-being is affected by a medical condition or its treatment." For cancer patients, most of these aspects of life are influenced negatively.[7–10] Furthermore, it has been reported that the measurement of QoL has prognostic value in patients with oncologic diseases.[11,12] Vulvectomy, as well as inguinal and pelvic LNE, severely affects the physical, emotional and social health of patients and has highly negative consequences for the patient's short and long-term quality of life. Furthermore, the treatment of vulvar cancer permeates the most intimate and sensitive region of the affected women.[13,14]

In this study we examined the QoL in patients with vulvar cancer using a valid cancer-specific questionnaire with a

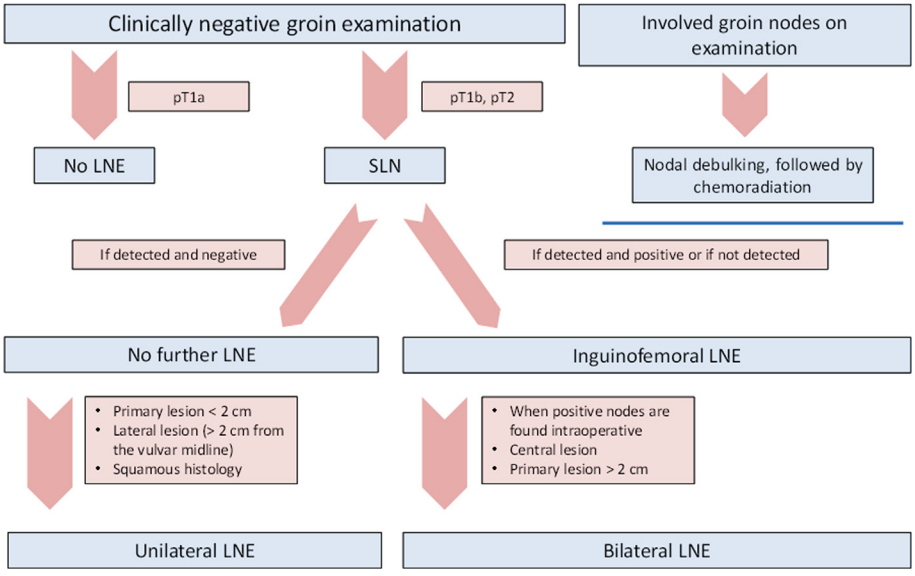

Figure 1. Standard of LNE in patients with vulvar cancer.