

Perioperative morbidity of Vulval cancer

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Abstract

Introduction: The present study is a retrospective analysis of vulval cancer patients who had been treated with surgery as primary mode. The cases studied were in tertiary care hospital south India of March 2008 to February 2013. Total number of patients was 11.

Materials and Methods: The medical records of all patients studied retrospectively with reference to stage of the disease, surgery performed, prophylactic antibiotics, intra-operative and postoperative complications.

Results: Among 11 patients 9 were postmenopausal. Ten patients histopathology showed stage 1b cancer for whom simple vulvectomy was performed, one patient had co-existing HGSIL(High Grade Squamous Intraepithelial Lesion) and positive right inguinal nodes, requiring TAH+ BSO+ right groin dissection and posterior colporrhaphy was done in one patient with rectocele. One patient presented with stage 2 disease for which radical vulvectomy with bilateral groin lymph node dissection was carried out. Postoperative radiotherapy was given for 8 patients with tumor positive margins.

Conclusion: Even though many modifications in surgical methods of vulval cancer still morbidity is high. Particularly surgical complication of wound infection. This delay will further add up for delay in starting adjuvant treatment. Hence there is a need of further modifications of surgical treatments like minimally invasive approach. A team of oncology surgeons, medical oncologists, radiotherapists is needed to manage this rare cancer.

With multidisciplinary approach Surgery for early stage vulval cancer has acceptable morbidity.

Keywords: Carcinoma vulva, Saphenous vein, Vulval cancer.

Introduction

Carcinoma vulva represents around 4% of the gynecologic malignancies and 0.6% of all cancers in women.^{1,2} The carcinoma vulva is rare, about 1.7 per 100000 females. It is mainly disease of postmenopausal women. Average age for invasive carcinoma Vulva ranges from 65 to 70 years.³

Etiology is still not clear. But the following factors are often related like

1. Post-menopausal women
2. More common among whites.
3. Increased association with obesity, hypertension, diabetes and nulliparity
4. Associated with vulvar epithelial disorders like lichen sclerosus.
5. Infection with high risk HPV (type 16, 18, 31, 33 and 45) has been detected in patients with invasive cancer vulva.
6. Smoking, other STSs, Syphilis and lymphogranuloma venereum also associated.

The most commonly involved site is labia majora accounting for 50% of all cases. Next are the labia minora with rare involvement of clitoris and Bartholin glands. Squamous cell cancer type accounts for 90%.⁴ Uremia from ureteric obstruction due to enlarged common ileac and paraaortic nodes, rupture of femoral vessels and sepsis are main causes of death of vulval cancer patients.

There are many modifications in surgery of Vulval

Cancer.⁵⁻⁷ Still peri-operative morbidity has been reported up to 50%.⁸⁻⁹

Nowadays, oncological surgeons concern is to minimize radical surgery with similar results to reduce the peri-operative morbidity.¹⁰ Today three separate vulval and groin incisions were taken instead of radical vulvectomy with bilateral Inguinofemoral lymphadenectomy(IFL). This newer approach decreased in morbidity with comparable survival rate.¹¹⁻¹² Complications like Wound cellulitis, wound breakdown and lymphedema reported in 25-39%, 17- 31% & 28-39% of the patients respectively.¹³⁻¹⁵

The present study is retrospective analysis of carcinoma vulva cases of 5 year duration from 2008 to 2013 in South India.

Objectives

1. To study the intra and operative complications of carcinoma vulva patients.
2. To know the peri-operative morbidity of carcinoma vulva patients.

Materials and Methods

It is a retrospective cohort study of carcinoma vulva patients who had been treated with surgery as a primary mode of treatment. Study period was 5 years. It is conducted at Jawaharlal Institute of Postgraduate Medical Education & Research (JIPMER), Pondicherry, India from 2008 March to 2013 February. The patients included were carcinoma vulva patients who got

operated. All patients medical records were collected in data form and analyzed each complications individually. Those included both preoperative and post-operative details. In particular clinical profile of patients, intra operative details like type of surgery, blood loss, and duration of surgery analyzed. Post-operative details like stage of the disease, duration of antibiotics, continuous bladder drainage, wound infection and number of days of hospitalization was studied.

A total of 11 patient's case sheets were studied. Exclusion criteria were a) if patient had not received surgery as primary mode of treatment b) if complete

details of case sheet were not available example if patient had taken treatment somewhere and had been referred for a particular morbidity management.

Results

Among 11 carcinoma vulva patients treated by surgery majority 9 (81.82%) of them were in the age group of 60-80 years. The minimum age was 48 years and maximum age was 76 years with mean age of 72 years.

Age distribution

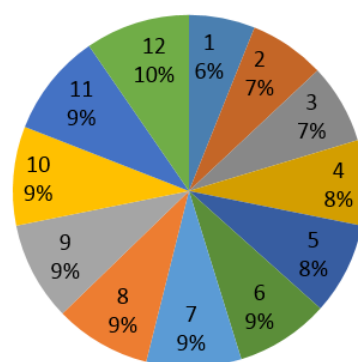


Fig. 1: Age distribution of vulval cancer patients

Among 11 subjects 9 (81.82%) postmenopausal women and 2 (19.28%) subjects were premenopausal women. All subjects were multi-parous women.

Majority of women 8 (72.8%) presented with pruritus vulva, discharge per vagina 6(54.54%), bleeding 6 (54.54%), pain over vulval area 4 (36.36%), growth over vulval area 4 (36.36%) and ulcer over vulva 2 (18.18%).

Clinical presentations

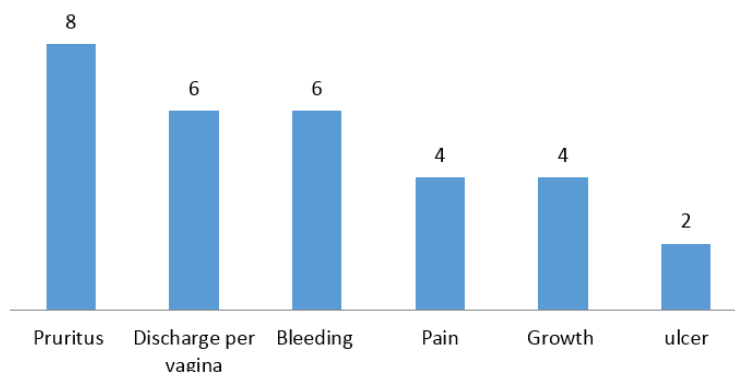


Fig. 2: Clinical presentations of vulval cancer patients

In the present study, 10(90.1%) women had carcinoma vulva stage 1b and 1 (9.9%) patient had co-existing High grade squamous intraepithelial lesion (HGSIL) and positive right inguinal nodes. One patient presented with stage II disease. One patient had rectocele also.

Simple vulvectomy was performed for 10 (90.10%) of stage 1b cases. The one case who had co-existing HGSIL and positive right inguinal nodes underwent Total abdominal hysterectomy (TAH+ BSO) and right groin dissection.

Posterior colporrhaphy was done in 1 patient with rectocele. Radical vulvectomy with bilateral groin lymph node dissection was performed for one patient of stage 2 disease.

Table 1: Histopathological types

Type	Subtype	Number	Percentage
Squamous cell carcinoma	-	10	90.91
	Keratinizing	8	72.73
	Basaloid	2	18.18
Adeno carcinoma	-	1	9.00

All patients received Prophylactic antibiotics. The prophylactic antibiotics were given one hour prior to surgery. The mean blood loss was 345 ml per case. Few cases were anemic at presentation itself. Anemic cases were treated by blood transfusion prior to surgery. Among total 11 cases 3 (2.73%) were received blood transfusion. During surgery 6 (5.45%) patients received blood transfusion.

Average duration of surgery ranged from 105 - 220 minutes. Catheters were kept for 7-14 days. Febrile morbidity was seen in 9 (81.82%) patients. Urinary tract infection was seen in 2 (18.18%) patients.

Wound infection of vulva occurred in 6 (54.55%) patients. Vulval wound healing time was average 48 days (range 14-86days). Uneventful cases were discharged by 14 days whereas wound infection cases were hospitalized for average 28 days. 8 (72.73%) patients had tumor positive margins and were planned for postoperative radiotherapy.

Discussion

In 1940s, Taussig¹⁶ introduced butterfly skin incision for the radical vulvectomy and bilateral inguinofemoral lymphadenectomy (IFL). After that so many modified surgical techniques were introduced. The main purpose all surgical modified techniques was to reduce the intra and post-operative morbidity but not compromising the benefits of radical procedure or the survival rate and recurrence rates. Because of which the triple incision procedure was introduced to replace the en bloc surgical excision.^{5,17}

Saphenous vein sparing modification was introduced instead of saphenous vein ligation during the inguinal lymphadenectomy when Zhang et al. published their retrospective analysis comparing saphenous vein sparing to saphenous vein ligation during the inguinal lymphadenectomy. That study showed decrease in the development of short-term lower limb phlebitis in shephenous vein preserved limb.¹⁸

Individual factors like cancer stage, cancer type, patient age and general medical health will affect survival rate. Five-year survival rates for carcinoma vulva are around 78%. Patients with stage I lesions will have five-year survival rate greater than 90% whereas it decreases to 20% when pelvic lymph nodes are involved.

The different approach of surgical technique for carcinoma vulva, that is taking separate incisions for tumor and groin dissection procedures, are still having

considerable morbidity. In the present study, complications were seen in 9 (81.82%) which is similar in comparison with the other studies 73.6%,¹⁴ 76%,¹² 85%,¹⁵ 85.7%.²⁰ It was statistically significant. Vulval Wound infection was present in 54.55% of patients which is significant when compared to 9% in another series.¹²

Previous studies reported rates of wound breakdown, lymphocyst and limb edema are 9.7-25%, 3.1-27% and 4.8-21%^{12,14,19} respectively which when compared to our series of complications were significant. The earlier studies showed wound infection rate of 12.5-27%.^{12,14,19} Our observation is that relatively high rates of wound infection was due to larger infected primary and poor personal hygiene.

Conclusion

Even though many modifications in surgical methods of vulval cancer still morbidity is high. Particularly surgical complication of wound infection, wound gaping which will lead to delay in wound healing. This delay will further add up for delay in starting adjuvant treatment. Hence forth decrease in overall disease free survival. Hence there is a need of further modifications of surgical treatments like minimally invasive approach. Such modifications may bring down the present morbidity. With multidisciplinary approach Surgery for early stage vulval cancer has acceptable morbidity. A team of oncology surgeons, medical oncologists, radiotherapists is needed to manage this rare cancer.

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