Vulva cancer in Ghana – Review of a hospital based data

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A R T I C L E   I N F O

1. Introduction

Vulva cancer is a rare disease representing 3 to 5% of gynecological cancers worldwideand remains an important disease affecting sexuality (De Martel et al., 2012; Hacker et al., 2015). Most published reports include rather small and heterogeneous groups of patients. In an earlier study conducted in Ghana, vulva cancer accounted for 2.1% of all gynecological malignancies (Nkyekyer, 2000). Another study of 5913 gynecological cancers from Nigeria reported 1.2% of Vulva cancers with majority exhibiting squamous cell histology and median age of 49.7 years compared to a median age at presentation above 50 years in the United States (Okolo et al., 2013). Burkina Faso reported that out of 21 patients, 15 presented with stage III or IV, and the median age was 55 years (Zongo et al., 2016).

Over 80% of cases occur in women over 55 years old (Alkatout et al., 2015). Fifteen percent of vulva cancers occur in women <40 years and could be due to the human papilloma virus infection (Siddiqui, 2002; RCOG Publications, 2006). Sixty percent of vulva cancer cases are associated with HPV and HIV infection especially in the developing countries (Smith et al., 2009).

Vulva pruritus is the most common presenting symptom. Other symptoms include bleeding, pain and ulceration or discharge (Hunter, 1975). Over 70% are of squamous cell histology being the most common followed by melanoma (Palmer and Gillespie, 2010). Many women have a long delay in diagnosis due to denial or minimization of symptoms, presenting with a locally advanced tumor at the time of initial evaluation.

Over the past decade, advances have been made in the management of vulva cancer, with a trend toward more conservative surgery in order to improve psychosexual outcomes (Alkatout et al., 2015).Surgery is the treatment of choice for early stage, and the indications for adjuvant therapy continue to evolve (De Hullu and Van der Zee, 2006). Less mutilating surgery including sentinel node procedures have equal outcomes toextensive and radical surgery (Günther et al., 2014). Chemosensitization of radiation therapy with 5-fluorouracil and cisplatin chemotherapy in the neoadjuvant, adjuvant setting or as definitive or palliative treatment for unresectable disease are available options, however fraught with toxicities requiring frequent and sometimes prolonged treatmentbreaks (Hacker et al., 2015).

In Ghana, as in other low middle-income countries, majority present with advanced disease (Nkyekyer, 2000). Definitive chemoradiation or palliation is the treatment of choice as options for optimal surgical management is available only in the teaching hospitals and very few patients are surgical candidates. The National Centre for Radiotherapy, Accra is a major referral center including other African countries. This retrospective study will analyze and review all cases of vulva cancer referred to this institution over a fourteen-year period.

2. Methodology

This is a retrospective study of histological diagnosed vulva cancers seen in our unit between January 2000 and December 2014. Patients' records were extracted from the institutional database. A data collection index was developed to extract the following information in patients' folder: Age at presentation, symptoms at presentation, initial site of lesion, stage of the disease using revised FIGO 2009 staging system (Pecorelli, 2009), histological type, date of first attendance, date of commencement of treatment, treatment received, duration of treatment interruption and outcome.

Descriptive statistics using excel were generated in the form of rates, ratios and proportions using excel statistical program.

3. Result

During the period under study, 3479 cases of gynecological cancers were recorded. Vulva cancers constituted 2% (70). The most common cancer was cervical cancer accounting for 80.4% (2797) whereas the least was vaginal cancer accounting for 1% (22).

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Table 1
Clinical and Histological Characteristics of 52 vulva cancer patients.

	Categories	N (%)
Age(years)	<45	11(21%)
	45–54	10(19%)
	55–64	14(27%)
	≥65	17(33%)
Presenting symptom	Swelling	20(38%)
	Ulceration	18(35%)
	Pruritus	8(15%)
	Rash	4(8%)
	Pain	1(2%)
	Groin swelling	1(2%)
Primary site	Labia majora	21 (40%)
	Labia minora	23 (44%)
	Fourchette	4 (8%)
	Mons pubis	2 (4%)
	Introitus	1 (2%)
	Clitoris	1 (2%)
Histology	Squamous cell carcinoma	44 (84%)
	Adenocarcinoma	1 (2%)
	Adenoid cystic	2 (4%)
	Trichilema tumor	1 (2%)
	Warty carcinoma	1 (2%)
	Cutaneous T cell lymphoma	1 (2%)
	Sarcoma	1 (2%)
	Melanoma	1 (2%)
Staging	Stage 1	7 (13%)
	Stage 2	6 (12%)
	Stage 3	8 (15%)
	Stage 4	31 (60%)

Table 2
Characteristics of patients who received radiotherapy.

	Categories	n (%)
Time lapse between date of pathological diagnosis and date of first attendance	<14 days	16 (31%)
	14–28 days	13 (25%)
	>28 days	23 (44%)
	Average	52.3 days
Time lapse between date of first attendance and commencement of radiotherapy treatment	<14 days	5 (14%)
	14–28 days	18 (50%)
	>28 days	13 (36%)
	Average	38 days
Treatment interruptions	None	3 (13%)
	<2 weeks	3 (13%)
	2–4 weeks	8 (35%)
	>2 weeks	9 (39%)
	Average	36 days
Reasons for interruptions	Planned breaks	10 (26%)
	Skin reaction	15 (39%)
	Diarrhea	4 (11%)
	Non compliance	8 (22%)1 (2%)
	Neutropenia	

3.1. Demography

The mean age for this study was 56.3 years with an age range of 24–79 years. Peak age at presentation was >65 years. 21% (11) of the women were <45 years. Most of the women were of low socioeconomic status.

The commonest presenting symptom was vulva swelling (38%), followed by ulceration (35%). Only 15% reported pruritus (8). (Table 1).

3.2. Histology

Squamous Cell Carcinoma was the commonest histological variant (Table 1).

3.3. Staging

Disease stage was done based on clinical examination, chest x-ray and ultrasound of the abdomen and pelvis, cystoscopy and proctoscopy where indicatedand from the latter part of 2008 with CT scans where deemed necessary. Sixty percent presented with stage 4, 15% with stage3, 12% with stage 2 and 13% with stage 1 disease.

3.4. Time lapse

The average time between date of pathological diagnosis and date of first attendance at the Radiotherapy Centre was 52.8 days (1–347). Majority (44%) reported >28 days after histological diagnosis. An average of 38 days elapsed between first attendance and date of commencement of radiotherapy. (Table 2).
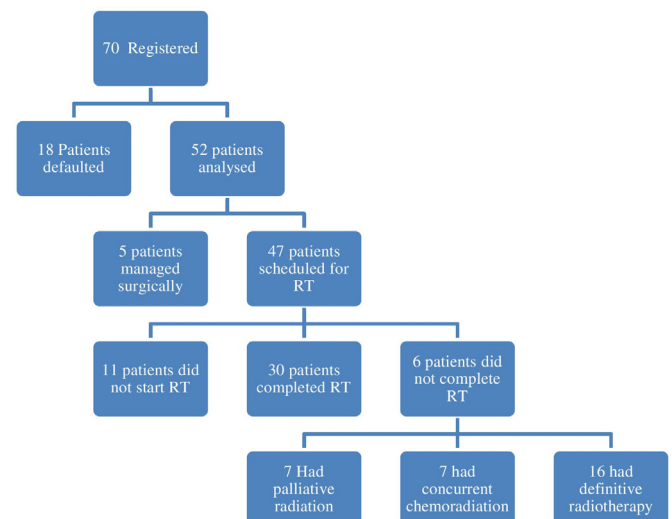
3.5. Treatment

Seventy cases of vulva carcinoma were documented at the Radiotherapy Centre. Eighteen did not return after initial registration. Five patients were referred for surgery. Eleven out of 47 scheduled to receive radiotherapy defaulted. Out of the remaining 36, seven patients received palliative radiotherapy and 6 patients who commenced definitive radiotherapy did not complete treatment. Sixteen women had definitive radiotherapy whilst six had concurrent chemo-radiation with IV Cisplatin 50 mg/m^2 day 1 and 5- Fluorouracil 425 mg/m^2 day 1–5 week 1 and 5. One patient treated in 2014 was treated with single agent cisplatin at 40 mg/m^2 weekly for 5 weeks (Fig. 1). Radiotherapy was delivered via a Cobalt 60 teletherapy machine. Anterior and posterior opposing beams with a shrinking field technique to encompass the involved bilateral inguinal and pelvic nodes and primary tumor was used. Electron beam therapy is not available. From the year 2000 to 2008, patients were treated with 2 dimensional techniques. Conformal planning techniques were applied from 2008 to 2014. Palliative radiation doses ranged from 10 to 40 Gy. The average definitive radiotherapy dose was 57Gy (45Gy–65Gy).

The choice of treatment was based on burden of disease, patient preference mainly related to financial constraints, physician preference and availability of evidence to support treatment modality. Notably patients were more likely to be managed with chemo radiation after 2010.

Fig. 1. Treatment characteristics of seventy patients with vulva cancer, Accra Ghana.