

Case Report

Primary vaginal cancer complicating massive uterine prolapse: A case report

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Abstract

Carcinoma of vagina associated with uterine prolapse is rare. The following case report is of interest because of successful treatment despite advanced age of patient, extreme degree of prolapse and advanced stage of carcinoma. We describe a case of 80-year-old woman with uterine prolapse for 30 years who developed proliferative growth of 12 x 8 x 8 cm on vagina extending till cervix, making it irreducible. A radical hysterectomy involving removal of parametrium and pelvic lymphadenectomy resulted in complete cure despite advanced age of patient, extreme degree of procidentia and advanced stage of carcinoma. This case illustrates the importance of variations of standardized procedure in such cases with extensive lesions, as well as the good prognosis of vaginal carcinomas developing on decubitous ulcers despite presenting in advanced stage.

Key Words:

Procidentia; primary vaginal carcinoma; carcinoma

Introduction

Even among diseases that occur after menopause, vaginal cancer is very rare [1]. Primary carcinoma of the vagina is rare and association with third degree uterovaginal prolapse is even rarer. Vaginal cancer accounts for approximately 2% of all female genital tract cancers [2,3]. The incidence peaks during the 6th and 7th decades. More than 90% are squamous carcinomas and postmenopausal vaginal bleeding is the commonest symptom. Although radiation therapy has been the primary treatment for this tumor, there is evidence to suggest that Stages I and II can

be successfully treated with radical surgery. Due to its rarity, treatment guidelines are difficult to standardize and there is controversy regarding the optimal treatment [4,5,6].

Case Presentation

An 80-year-old woman was referred with malignant lesion on the mass protruding out of introitus for 30 years. She had developed the lesion 2 months ago which gradually increased in size and made the mass irreducible. There was history of foul smelling discharge from the lesion along with mild bleeding. The biopsy from the mass revealed well differentiated squamous cell carcinoma. As the mass could not be reduced for the purpose of radiotherapy, she was referred to our hospital. She had had three vaginal deliveries at home, the last being 52 years ago. She was a known case of hypertension and diabetes mellitus for last 20 years

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which was well controlled on medications and diabetic diet. Cystoscopy could not visualize both ureteric orifices, but revealed no growth in the bladder wall. Ultrasound examination of the abdomen revealed bilateral hydronephrosis with no other abnormality in other organs. On examination, she was a thin frail lady weighing 37 kg. Bilateral inguinal lymph nodes were mildly enlarged to 1-2 cm size, non tender, non matted and appeared benign.

free from tumour infiltration though the upper margin of the tumour felt very close to the rectum. The rest of the vagina was thick, fibrosed, keratinized with healed decubitus ulcers on the cervix. Cervix was atrophied (Figure 1). Her blood pressure and blood glucose level were controlled with medications. Colposcopy examination and directed biopsy revealed high grade squamous dysplasia of the cervix.

Figure 1.



Vaginal Carcinoma developed in large procidentia

Examination of the introitus revealed large mass of 12 x 10 cm size containing irreducible procidentia with large cystocele and small rectocele along with the ulceroproliferative growth of 10 x 8 cm on vagina with necrotic base with few areas of haemorrhage and discharge at the centre. The growth was bleeding on touch. Uterocervical length was 5 cm showing small atrophic uterine size. There was no demonstrable stress urinary incontinence. The growth extended from the lateral edge of the portio vaginalis of the cervix at 3 o'clock position laterally towards the vulva, 2cm short of reaching the left labia minora. Thus, it was free from the vulva. The growth was firm, solid, indurated and it was possible to get above the swelling, indicating that it was free from levator ani. The urinary bladder was free of tumour involvement. Per rectal examination revealed parametrium free from the tumour. The rectal mucosa was

Figure 2.



Vaginal hysterectomy specimen removed along with the mass

Hence the diagnosis of primary vaginal carcinoma FIGO stage II was made as per FIGO guidelines [7]. Proctosigmoidoscopy revealed normal study. Magnetic Resonance Imaging revealed complete uterine prolapse with cystocele and rectocele. No obvious infiltration of mass to the rectum or to the cervix was noted. Bilateral moderate hydronephrosis was noted. Lower third of ureters were seen protruding through the vaginal wall along with the blad-

der. Features were suggestive of carcinoma of vaginal wall on MRI and procidentia with large cystocele along with growth in the posterolateral aspect of vagina not infiltrating bladder or rectum was diagnosed. The levator ani muscle was free from tumour. Further treatment was planned in collaboration with the radiation and the surgical oncologist. As the tumour mass was outside the introitus along with the cystocele and rectocele with no parametrial involvement, decision for tumour resection prior to radiotherapy was taken. A radical hysterectomy involving removal of parametrium of both sides and bilateral pelvic lymphadenectomy with anterior colporaphy to repair third degree cystocele were performed using an abdomino-vaginal approach under spinal and epidural anesthesia. The abdomen was opened through an infraumbilical midline vertical incision. Bilateral pelvic lymphadenectomy was first completed. A type III radical dissection of the uterosacral-cardinal ligament complex was then done after completely dissecting the pelvic ureters. By vaginal route the entire vagina was dissected from the cystocele anteriorly and the rectoenterocele posteriorly. The paracolpos was clamped and cut on both the sides and the entire specimen delivered vaginally followed by repair of cystocele (Figure 2, Figure 3). Histopathological examination of the specimen revealed keratinizing well differentiated squamous cell carcinoma- vagina extending up to the cervix and paravaginal tissue. All surgical margins as well as pelvic lymph nodes were free from tumour. TNM classification was T2N0M0. Microscopy from the ulceroproliferative growth showed no lymphovascular invasion. Cervix showed severe dysplasia. Uterus showed cystic atrophy of endometrium and free from tumour tissue. Both fallopian tubes were unremarkable and free from tumour. One lymph node identified in the paravaginal tissue showed reactive hyperplasia and free from tumour. She demonstrated an uneventful postoperative recovery and was discharged on day seven. Picture taken after 10 days of surgery is shown in Figure 3. She received RT 50 grays/25 #/ 5 weeks with 3 Dimensional Conformal RT technique with clinical tumour volume inguinal node receiving 44 grays/22 # as prophylaxis against recurrence. At the follow-up till 8 months after treatment in May 2016, she had no symptoms, vaginal cytology showed no malignant cells and imaging study revealed no pelvic or extrapelvic spread.

Discussion

In general, uterine prolapse combined with vaginal cancer is a very uncommon condition. After Howat *et al.* reported a patient with an entero-vaginal fistula, several other reports were published subsequently [3,8-12]. It is common that ulcerating lesion is a presenting symptom of uterine prolapse combined with vaginal cancer. It is assumed that vagina may be exposed to inflammatory response and chronic irritation [6]. Fonseca *et al.* examined cytologic, colposcopic and histological findings in patients with uterine prolapse [14]. The report showed chronic cervicitis in 97.9%, cervical decubitus ulcer in 13.6% and carcinoma in situ in 1% [14]. It suggests the importance of preoperative evaluation of cervix in uterine prolapse in order to exclude the possibility of cervical carcinoma. Cho *et al.* analyzed a total of 154 patients with uterine prolapse who underwent hysterectomy and two patients were found to have cervical carcinoma [15]. As with concerns of possibility of vaginal cancer if any changes in the epithelium or ulcer are suspected, preoperative biopsies are highly required.

Figure 3.



Healed surgical site at 10th postoperative day had complete resolution of symptoms and the disease

In our case, the patient had suffered for 30 years from uterine prolapse. A patient with a long history of uterine prolapse must be treated with care due to the risk potential for malignant change. It is essential to pay careful attention to patients with uterine prolapse by performing various tests to discover malignant lesions before surgical treatment. Although most cancer centers prefer either radical radiotherapy or, more recently, concurrent chemoradiation for primary vaginal cancers, we believe that radical surgery has an important role to play in the management of selected women with primary cancers of the vagina. There is evidence to suggest that the results of radical surgery in selected early stage primary squamous vaginal carcinomas are superior when compared to those achieved with radiation therapy alone [4]. In cases of vaginal cancer presenting with significant prolapse there are additional considerations during treatment planning. Most importantly, the bladder and any contents of an enterocele sac will have more exposure to the radiation field in these patients. Of note, two of the six patients described in Rao's 1984 case series developed vesicovaginal fistulas following primary radiation treatment [12]. Furthermore, brachytherapy may not be technically feasible without prior surgery to reduce the prolapse. This treatment approach may limit the risk of urologic complications due

to reducing exposure of the bladder to the radiation field. The management of this patient presented several technical problems. The prolapsed mass was so indurated and had assumed such gigantic proportions that it was impossible to reduce it into the pelvis in order that adequate radiation therapy could be administered. This case report is of interest because despite extreme degree of the prolapse, the extensiveness of the carcinoma, and inability to reduce the mass into the pelvic cavity, the surgical treatment resulted in complete cure of the patient. The presence of prolapse does not rule out carcinoma of the vagina, although the incidence of cancer appears to be much lower in these patients. Therefore, repeated biopsies must be taken in order to investigate adequately all suspicious areas in these vagina or cervixes.

Acknowledgement

None

Declaration of Interest

None

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