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Case Report

Cervical carcinoma with skin metastasis – Case report

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ABSTRACT

Although cervical carcinoma is common, cutaneous metastasis is rare. In advanced disease, metastases may be present in the adnexa, abdomen, lungs, bone, liver and lymph nodes or. elsewhere. Cutaneous metastasis is uncommon. Unusual sites of metastasies seems to be skin, brain, heart and spleen. In this case, a 45 years old female was diagnosed to have squamous cell carcinoma of cervix on february 2013, who took radiotherapy treatment presented with cutaneous metastasis after a year. She received 4400 cGy/22 fractions of Extended Beam radiotherapy, followed by 4 doses of 700 cGy Cavity Radiotherapy (Brachytherapy). She completed her treatment on march, 6, 2013 with complete remission, without any complication. She was considered cured by the oncologists until after a year when she presented with cutaneous metastasis, which was proven with skin biopsy. The case is reported as this kind of case seems to be rare as far as our knowledge is concerned.

Key words: Cervical cancer; metastasis; extended beam radiotherapy; human papillomavirus; papanicolaou smear

INTRODUCTION

The incidence of metastasis to the skin from visceral cancer is less than 10% (0.7–9.0%) [1]. Cutaneous metastasis in women mainly arises from breast, ovary, and colon cancer. Patients with cervical carcinoma are at risk for local invasion and metastasis, most often to the lungs, bone, liver and lymph nodes [2]. However, Cervical cancer rarely metastasizes to the skin; this occurs in < 2% (0.7% to 1.3%) of patients [3]. Patients with cutaneous metastatic disease may present at the time of diagnosis or up to 10 years later [4]. Unusual metastases also occur in some patients. Patients with skin metastases are sally preterminal particularly when the primary is the lung where the time between appearance of the metastasis and death is between 1.5 and 2.6 months. In patients with carcinoma of the esophagus, the time from diagnosis to death is 4.3 months, on the average. However, metastases to the skin from primary malignant tumors involving the colon, bladder, kidney, and ovary do not necessarily represent preterminal events. The time form diagnosis to death varies from 7.3 months in carcinoma of the ovary to 12.7 months in carcinomas of the kidney. Cervical cancers can also spread locally through the angiolymphatic apparatus and very rarely metastasize to the brain [5,6]. The intracranial metastasis is a late event and a sign of poor prognosis. Even meatstasis to spleen, breasts, heart and bones (especially tibia) have also been reported so far [7-10]. Therefore, it is important to establish the primary source, the extent of the metastatic lesions and devise treatment programs that are appropriate to the pattern of the metastasis and the primary diagnosis [11].

CASE REPORT

A 45 years old female was diagnosed to have squamous cell carcinoma of cervix on February 2013. She received 4400 cGy/22 fractions of Extended Beam radiotherapy followed by 4 doses of 700 cGy Cavity Radiotherapy (Brachytherapy). She completed her treatment on march, 6, 2013 with complete remission, without any complication. She had no symptom until january, 2014, when she suddenly developed multiple, asymptomatic, rapidly progressive ulceroproliferative lesion over the perigenital areas, associated with occasional bleeding from the lesion (Figs 1 and 2). She also complained of menorrhagia, and oedema over bilateral thighs. Skin biopsy was taken from the skin lesion and was diagnosed

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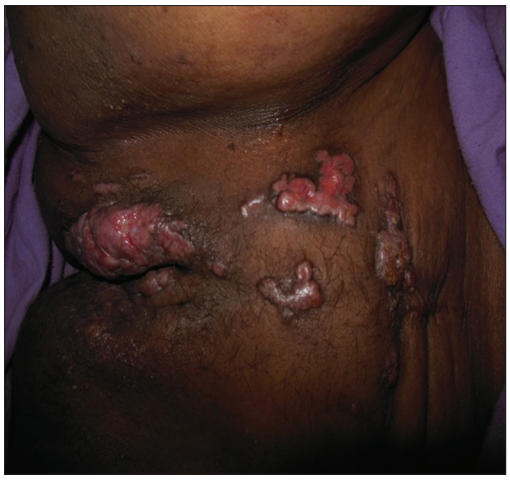

Figure 1: Patient with cevical carcima metastasized to skin

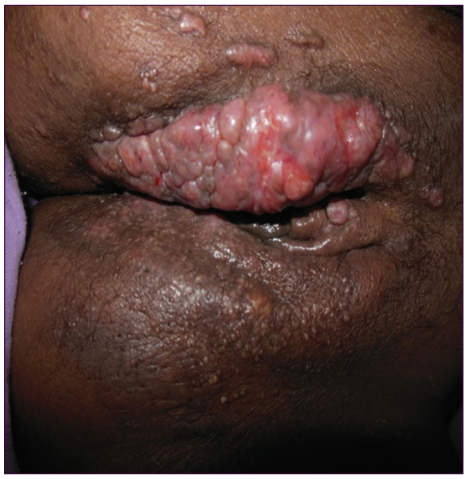

Figure 2: Patient with cervical carcimo metastasized to skin (closer view)

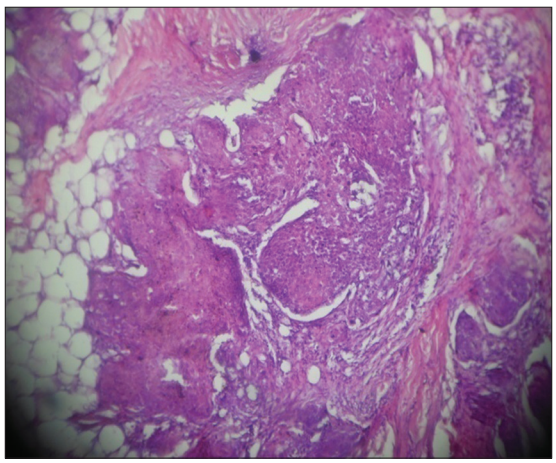

Figure 3: Hisptopathological features of the same patient (sample taken from skin lesion). Squamous invasion of dermis, replacing and damaging normal dermal architecture, infiltrating upto subcutis

to be Squamous cell carcinoma, infiltrating dermis and subcutaneous tissues (Figure 3).

The patient's informed consent was obtained.

Prior to the study, patient gave written consent to the examination and biopsy after having been informed about the procedure and aim of the study.

DISCUSSION

Cervical cancer is a malignant neoplasm arising from cells originating in the cervix uteri. Abnormal vaginal bleedingis one of the most common presentation, but in some cases there may be no obvious symptoms until the cancer has progressed to an advanced stage. Human papillomavirus (HPV) infection appears to be involved in the development of almost all cases (>90%) of cervical cancer. The cervical carcinoma may be classified based on hitology as follows: squamous cell carcinoma, adenocarcinoma, adenosquamous carcinoma, small cell carcinoma, neuroendocrine tumour, glassy cell carcinoma, villoglandular adenocarcinoma [4,12]. Most cervical cancers are squamous cell carcinomas that are arising from the squamous (flattened) epithelial cells that line the cervix. Adenocarcinoma seems to be the second most common type. Rarely, cancer can arise in other types of cells in the cervix [6]. The early stages of cervical cancer may be completely asymptomatic. Vaginal bleeding, contact bleeding, or (rarely) a vaginal mass may indicate the presence of malignancy. Also, moderate pain during sexual intercourse and vaginal discharge are symptoms of cervical cancer. Symptoms of advanced cervical cancer may include: loss of appetite, weight loss, fatigue, pelvic pain, back pain, leg pain, swollen legs, heavy bleeding from the vagina, bone fractures, and/or (rarely) leakage of urine or faeces from the vagina. In advanced disease, metastases may be present in the adnexa, abdomen, lungs, bone, liver and lymph nodes or. Elsewhere [13]. Cutaneous metastasis is uncommon. Unusual sites of metastasies seems to be skin, brain, heart and spleen. Papanicolaou smear should include rescreening programs and fluid-based technology. Once cervical cancer is diagnosed, clinical staging takes place. Protein markers for detection of recurrence and vaccines for prevention of cervical cancer are under investigation. In the past few years, researchers have introduced several new cervical cytology technologies that attempt to increase the sensitivity and decrease the false-negative rate of the conventional screening methodology. Two automated rescreening devices are presently labeled by the U.S. Food and Drug Administration: the AutoPap 300 QC (NeoPath,

Redmond, Wash) and the PapNet (Neuromedical Systems, Suffern, N.Y.). Both are intended to identify possible false-negative results in previously manually screened Pap smears [14]. Wentz and Reagan divided cervical squamous carcinomas into three cell types: large cell keratinizing, large cell nonkeratinizing, and small cell [13]. Large cell keratinizing squamous carcinoma is characterized by sheets and nests of cells with abundant cytoplasm, large pleomorphic nuclei and inconspicuous nucleoli. Keratin pearls and intercellular bridges are evident. Mitotic figures are noted occasionally, and the growth pattern is largely infiltrative [15]. Large cell nonkeratinizing squamous carcinoma has large cells of similar size and shape. The cytoplasm is moderate in amount, eosinophilic to amphophilic, some having individual cell keratinization with distinct cell borders. By definition keratin pearl formation should be absent. Nucleoli are prominent and mitotic figures are common. The invasive edge is often smooth [16]. Small cell squamous carcinoma is characterized by loosely cohesive nests and sheets of small to medium sized cells with hyperchromatic nuclei, scant cytoplasm and small nucleoli. Keratinization is minimal or absent, and mitotic figures are abundant. The nuclear chromatin is finely to coarsely granular, and small nucleoli are often evident. Crush artifact and nuclear smudging are not prominent. The nuclear cytoplasmic ratio is lower than small cell anaplastic carcinoma. The cell borders are also more distinct. Rare cytoplasmic keratinization also belies the squamous nature of the lesion [15,16]. Early-stage tumors can be managed with cone biopsy or simple hysterectomy. But the problem with any surgical procedure is, although rare, the incisional site metastasis can bea complication of cervical carcinoma especially of the squamous type [10]. Higher stage tumors can be treated surgically or with radiotherapy. Advanced metastatic disease may respond to radiation therapy and concurrent chemotherapy.

To conclude, let us look into some management in a precise manner. Stage 0: Carcinoma in situ (stage 0) is treated with local ablative or excisional measures such as cryosurgery, laser ablation, and loop excision; surgical removal is preferred. Stage IA1: The treatment of choice for stage IA1 disease is surgery; total hysterectomy, radical hysterectomy, and conization are accepted procedures. Stage IA2, IB, or IIA: Combined external beam radiation with brachytherapy and radical hysterectomy with bilateral pelvic lymphadenectomy for patients with stage IB or IIA disease; radical vaginal trachelectomy with pelvic lymph node dissection is appropriate for fertility preservation in women with stage IA2 disease and those with stage IB1 disease whose lesions are 2 cm or smaller Stage IIB, III, or IVA: Cisplatin-based chemotherapy with radiation is the standard of care. Stage IVB and recurrent cancer: Individualized therapy is used on a palliative basis; radiation therapy is used alone for control of bleeding and pain; systemic chemotherapy is used for disseminated disease [17].

In conclusion, although cervical carcinoma is a common disease, its metastasis to the skin is a rare entity. Even after diagnosis, its treatment especially surgical intervention seems to be risky as the incision site itself may lead to further metastasis.

CONSENT

The examination of the patient was conducted according to the Declaration of Helsinki principles. Written informed consent was obtained from the patient for publication of this article.

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