



UNUSUAL CASE OF CARCINOMA CERVIX METASTASING TO SUPRASELLAR REGION SINUS

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Abstract : Bone metastasis from carcinoma cervix is uncommon. A 75 year old lady presented with carcinoma of uterine cervix, FIGO, stage IIA. She was treated with radical radiotherapy. During the course of treatment, after 25Gy RT patient had complaints of headache and nausea. On evaluation patient was found to have a destructive lesion involving the base sphenoid with soft tissue component and extending into the sphenoid sinus on right side. This is one of the few documented cases of metastasis to supratentorial region, arising from carcinoma of uterine cervix and probably the first with isolated metastasis of this site.

Keyword : SELLAR, CERVIX, METASTASIS

INTRODUCTION:

Patients diagnosed with carcinoma cervix may develop pelvic recurrence, distant metastases, or a combination of both or distant metastases at presentation or during treatment. Recurrence rate of 10%-20% has been reported following primary surgery or radiotherapy in patients with stage IB-IIA cervical tumors with no evidence of lymph node involvement, and up to 70% of patients with nodal metastases and/or more locally advanced tumors will relapse. As the size of a pelvic tumor increases, the proportion of patients with disease recurrent or persistent in the pelvis as the only site of failure is greater than the proportion developing distant metastases. The 10-year actuarial incidence of distant metastases was 3% in stage IA, 16% in stage IB, 31% in stage IIA, 26% in stage IIB, 39% in stage III, and 75% in stage IVA. In patients who develop distant metastases, the most frequently observed metastatic sites were lung (21%), para-aortic nodes (11%), abdominal cavity (8%), and supraclavicular nodes (7%).

Bone metastases occurred in 16% of patients, predominantly involving the lumbar and thoracic spine. Patients who relapsed in lymph nodes had a median survival of 24 weeks, while those who relapsed in other organs had a median survival of only 12 weeks. The majority of recurrences occur within 2 years of diagnosis, and the prognosis is poor, with most patients dying as a result of uncontrolled disease. Treatment decisions should be based on the performance status of the patient, the site of recurrence and/or metastases, the extent of metastatic disease, and prior treatment. Patients with recurrent/metastatic cervical cancer may experience a variety of symptoms including pain, anorexia, vaginal bleeding, cachexia, and psychological problems, among others. The specific management of these symptoms will not be described further in these guidelines.. Management of these

symptoms is the first priority for the physician treating patients with recurrent cervical cancer. Cervical cancer is the major cancer burden in developing countries. Bone is the third most common site of distant metastasis after the lungs and liver. . International Federation of Gynecology and Obstetrics stage IIB was the most common stage (43.9%). Most patients had squamous cell carcinoma (80.48%) and received radiation therapy alone as their primary treatment (58.53%). The most common presenting symptom was pain (78.04%). Most of the patients had multiple bone lesions and extrapelvic bone metastases. The lumbar spine was the most common site (36.36%). Sixteen patients (39.02%) were treated by palliative radiation therapy. The median overall survival was 23 months.

PATHOLOGICAL CLASSIFICATION

About 90% of tumors are squamous-cell carcinoma. Approximately 7% to 10% are classified as adenocarcinoma, and 1% to 2% are the clear-cell, mesonephric type. Squamous-cell or epidermoid carcinoma is composed of cores and nests of epithelial cells arranged randomly; cells show central keratinization with cornified pearls and sometimes necrosis. Nonkeratinizing tumors may be seen. Electron microscopy may show desmosomes and to no filaments. Squamous-cell carcinomas are divided into three types: large-cell keratinizing and non keratinizing and small-cell type, and they are subdivided according to the degree of differentiation into well, moderately, or poorly differentiated.

Adenocarcinoma arises from the cylindrical mucosa of the endocervix or the mucus-secreting endocervical glands. Mucinous is the most common substage of adenocarcinoma. The endocervical adenocarcinoma may form mucosal glands lined by high columnar cells and produce tubular folds oriented in many directions. In another subtype, cells resemble those of the Intestines; the epithelium tends to be pseudostratified and may contain goblet cells. The third variant is the signet-ring cell, which is rare and usually mixed with the endocervical or intestinal patterns.

It has been suggested that adenocarcinoma has a pro- pensity for endophytic growth into the Cervical stroma which could allow early access to lymphatic channels and result in disseminated nodal metastasis. Although such a pattern of growth has been suggested for patients with squamous cell cancer with barrel-shaped cervical lesions, the higher incidence of paraaortic nodal metastasis noted in patients with adenocarcinoma suggests that adenocarcinoma may have a greater tendency for this type of

spread. Endometrioid carcinoma is the most common cell type of endocervical adenocarcinoma; A well-differentiated cervical adenocarcinoma has been improperly designated as adenoma malignum when it is truly a malignant tumor that invades adjacent tissues and may produce distant metastasis. Adenosquamous carcinoma is relatively rare (2% to 5%) and consists of intermingled epithelial cell cores with squamous features and glandular structures. The squamous component is frequently nonkeratinizing. If the squamous component is benign metaplasia, the tumor is called adenoacanthoma.

Radiotherapy for Metastatic Cervical Cancer

Local treatment with radiation therapy to sites of symptomatic involvement in patients with metastatic disease has an important role to play in the alleviation of pain arising from skeletal metastases and symptoms associated with cerebral metastases. Meta-analyses have shown that short courses of radiotherapy are as effective as long courses in the relief of bone pain, and similar results were found in the treatment of cerebral metastases. In view of the shortened life expectancy of patients with metastatic cervical cancer, palliative radiotherapy should be given via larger fractions over shorter periods of time than conventional radical courses of treatment.

CASE REPORT

A 65 yr old lady on radical RT EBRT of 25 Gy for adenocarcinoma of uterine cervix stage II A2 was evaluated for vomiting and headache on evaluation with spiral CT plain and contrast there is an evidence of irregular bony erosion in the anterior aspect of clivus and adjacent body of sphenoid bone on the right side and evidence of soft tissue density lesion in the right side of sphenoid sinus. MRI Brain suggestive of destructive lesion involving the base sphenoid with soft tissue component and extending into the sphenoid sinus on right side. Moderate enhancement is noted in the post contrast sequence. Punch biopsy of the cervix suggestive of cells of round to oval with high nuclear cytoplasmic ratio, vesicular nuclei with prominent nucleoli with marked anisokaryosis suggestive of adenocarcinoma grade III NG high (LCNK). Biopsy from the sellar tumor operated outside at VHS suggestive of metastatic adenocarcinoma grade III NG high AB mucin positive. Slide review of primary showed adenocarcinoma Grade III NG high. Total pelvic dose 39 Gy with gap correction through EBRT followed by 2 HDR ICA to deliver PT A dose of 16 GY. Patient underwent transphenoidal excision of the sellar tumor at VHS adyar followed by conformal local RT to the secondary site of TD 30Gy. Partial response of cervical lesion and metastatic lesion are still under follow up.

SUPRASellar SOLITARY DEPOSITS WITH BONY EROSION 3D Conformal plan Beam Arrangements

Review of both slides suggestive of adenocarcinoma

Conclusions

Carcinoma cervix is the most common malignancy prevalent in Indian women, with incidence of 19-44 per 100,000 women. Risk of developing distant metastasis, depends upon the presence of various poor prognostic features, such as advanced stage, endometrial extension and local failure. Metastases from carcinoma cervix are predictable and well-studied. Apart from local spread, the disease goes to the pelvic and para-aortic lymph nodes and then by hematogenous route to the supra and infradiaphragmatic viscera i.e. lungs and liver. The frequency of bone metastasis is less. Abdomino-pelvic CT scan is also recommended in cases of metastasis, to rule out local disease, as more than 50% of these are associated with local para-aortic recurrences also. Spread to bones occurs either by direct extension to bone from pelvic tumor, or from soft tissue metastasis outside pelvis and least commonly by hematogenous route. A combination of these mechanisms can be involved in patients having widespread disease. Osseous metastasis from cervical cancer has been reported in all axial and peripheral bones. Vertebrae, followed by

pelvic bones, are the most common sites of skeletal metastasis. Spread to distal sites such as femur and skull, is considered to be hematogenous.

Metastasis to distal acral skeleton from cancer cervix is rare, with incidence ranging from 0-17%, in all the major series, reporting skeletal metastasis from cancer cervix. Metastasis to suprasellar region is even rarer. Involvement of skull, ribs, clavicle, scapula, sternum, tarsal, metatarsal and innominate bones, along with metastasis to both tibia and fibula and isolated metastasis of tibia, has been previously documented in literature, but isolated metastasis to suprasellar region from cancer cervix, has not been previously reported. It is however not clear from their report, whether these were metastasis localized to suprasellar region alone, or they were the part of widespread metastatic disease. Thus, this is possibly the first reported case of isolated metastasis to suprasellar region from carcinoma cervix. Skeletal X-ray and bone scan are useful for evaluation of metastatic bone disease. CT scan may be required to determine the extent of disease, including soft tissue extension. Once the bone lesion is detected, the treatment is directed towards pain relief and radiation is effective as palliative treatment. Considering the short life expectancy of the patient, treatment is directed towards maintaining quality of life, hence a short course of radiation with use of moderate doses from 30- 40 Gy is recommended. Surgical management of bone metastasis is contemplated in cases of isolated and relatively localized disease, with patient having good general condition. This is usually followed by palliative radiotherapy for control of pain and other local symptoms. The prognosis of patients with bone metastasis is poor and most patients die within a year, after the appearance of metastatic lesion. This poor prognosis is uniform and regardless of the duration of disease free interval, or the presence of single or multiple organ metastases. This patient responded well to treatment and is with residual disease, 14 months after detection of bone metastasis. The aim of this paper is to highlight the gaps in our knowledge and stimulate more rigorous investigation, while at the same time providing an evidence-based foundation for treating women with metastatic cervical cancer.

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