A Metastasis to the Nasal Tip from a Cervical Carcinoma

— A Case Report —

AKIO KATAOKA, TAKASHI NISHIDA, YOSHITO TOMIOKA, NOBUYUKI HIRAI, MORIO OHBUCHI AND MICHIAKI YAKUSHIJI

Department of Obstetrics and Gynecology, Kurume University School of Medicine, Kurume 830-0011, Japan

Summary: Metastases to the nasal tip from gynecological malignancies are extremely rare. We present a case of a tumor metastatic to the nasal tip from a carcinoma of the uterine cervix. We administered high-dose focal irradiation to the site of the tumor. The literature on metastases to the nose, maxillary sinuses, and paranasal sinuses from gynecologic malignancies is reviewed.

Key words uterine cervical cancer, metastasis, nasal tip, MRI, irradiation

INTRODUCTION

Carcinoma of the uterine cervix is the fourth most common malignant tumor in women. In the United States, it accounts for nearly 6,000 deaths annually [1]. The disease spreads into the surrounding tissues by direct infiltration and disseminates by lymphatic and hematogenous pathways. The common sites of extranodal metastases are the lung, liver, and bones [2]. The location of the metastases is an important prognostic factor in determining therapeutic response and patient survival in cervical cancer [2]. Cutaneous metastases from cervical carcinoma are extremely uncommon. Furthermore, there have been no reports of metastases to the nasal tip from cervical cancer. We present a case of a tumor metastatic to the nasal tip from carcinoma of the uterine cervix.

CASE REPORT

A 68-year-old, gravida 4, para 4 Japanese woman presented to Kurume University Hospital in January 1996 with a 2-month history of postmenopausal vaginal bleeding. Vaginal examination revealed an ulcerative lesion involving the cervix, with no adnexal masses, and a normal-sized uterus. On examination under anesthesia, the cervical tumor involved the entire circumference of the cervix and fornices, and there was vaginal and bilateral parametrial extension but no extension into the pelvic cavity. Cystoscopy was normal. Cervical biopsy showed a well-differentiated squamous cell carcinoma. Chest radiographs, intravenous urography, and computed tomography of the abdomen and pelvis were normal. The serum level of SCC (sSCC) was elevated to 32.6 ng/mL (normal range < 1.5 ng/mL). The patient was Stage I Ib, according to the FIGO (International Federation of Gynecologists and Obstetricians) classification.

A radical hysterectomy was performed on February 2, 1996. The pathologic diagnosis was moderately-differentiated squamous cell carcinoma (Fig. 1). Pathological examination of the surgical specimen showed that the cervical tumor extended into the lower myometrium, with metastases to the pelvic nodes. The patient received a course of postoperative intravaginal and pelvic radiotherapy (38 Gy and 50 Gy). After the treatment the patient was observed as an outpatient until June 1996, when the sSCC was found to be elevated to 17.6 ng/mL.

She returned to our hospital and was admitted for re-elevation of the elevated sSCC which was then 30.8 ng/mL. However, no recurrent tumor was detected in the chest, abdomen or pelvis by computed tomography, or in the bones by Ga-scintigram. She

Received for publication October 21, 1997
Address for correspondence: Akio Kataoka, M.D., Department of Obstetrics and Gynecology, Kurume University School of Medicine, 67 Asahi-machi, Kurume 830-0011, Japan. Tel: 81-942-35-3311 ext 3567 Fax: 81-942-35-0238
received three courses of nedaplatin 80 mg/m², with a decrease in the sSCC to 10.6 ng/mL. She received three more courses of chemotherapy. However, the sSCC increased to 106.5 ng/mL and a tumor was palpated in the pelvic cavity in December, 1996. At the same time, she complained of the nasal obstruction and swelling of nasal tip (Fig. 2). The tumor grew very rapidly, and a biopsy from the nasal tip showed moderately differentiated squamous cell carcinoma (Fig. 3). A head and neck magnetic resonance imaging (MRI) showed a 2.5×3.0 cm lesion in the nasal tip, without any other metastatic foci (Fig. 4). She complained of a large amount of vaginal discharge, and was diagnosed with vesicovaginal and rectovaginal fistulas. She underwent a diverting colostomy and percutaneous urostomy, and the tumor at the nasal tip was irradiated (75 Gy) in January, 1997. The nasal tip tumor decreased in size. Despite these treatments, the patient died of her disease in March, 1997.
Fig. 3. Histopathologic appearance of the nasal tip tumor (H&E, original magnification ×100).

Fig. 4. Cystic tumor in the nasal tip, demonstrated with contrast-enhanced MRI.
TABLE 1.
Metastases to the nose, maxilla, or paranasal sinuses from gynecologic malignancies

<table>
<thead>
<tr>
<th>Age of patient</th>
<th>Primary tumor</th>
<th>Metastatic site</th>
<th>Treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kataoka et al</td>
<td>69</td>
<td>Squamous cell carcinoma of the uterine cervix</td>
<td>Nasal tip</td>
</tr>
<tr>
<td>(1997)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Salimi (1977)</td>
<td>35</td>
<td>Choriocarcinoma of the uterus</td>
<td>Nasal mucosa</td>
</tr>
<tr>
<td>Friedmann and</td>
<td>56</td>
<td>Uterine leiomyosarcoma</td>
<td>Frontal sinus</td>
</tr>
<tr>
<td>Osborn (1968)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Friedmann and</td>
<td>58</td>
<td>Uterine leiomyosarcoma</td>
<td>Palate</td>
</tr>
<tr>
<td>Osborn (1965)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cohen (1931)</td>
<td>56</td>
<td>Carcinoma of the uterine cervix</td>
<td>Maxilla</td>
</tr>
</tbody>
</table>

DISCUSSION

Metastatic lesions to the nasal tip are rare, but among these, metastases from renal neoplasms are by far the more frequent [3,4]. To the best of our knowledge, deposits in the nasal skin from a primary squamous cell carcinoma of the uterine cervix have not been described previously, although distant metastases from squamous cell carcinoma of the uterine cervix are documented [2]. Only a few cases have been reported with metastases to the maxilla, nose, or paranasal sinuses from gynecologic malignancies (Table 1) [2-6].

Brama et al. [7] have reported a patient presenting with a substantial nasal tip mass due to leukemic infiltration, which almost disappeared when appropriate chemotherapy was started. Solitary kidney tumor metastases have been observed in every system of the body, including multiple skin areas [8]. Braun-Falco and Lukacs [9] have reported a metastasis from a renal cell carcinoma to the nasal tip.

Seeding to the nose from a thoracic or abdominal primary may be due to hematogenous spread passing through the pulmonary circulation and then onward from the heart. The linkage of regional lymphatics to the thoracic duct is another route to the pulmonary vascular circulation. An alternative explanation is that when the intrathoracic pressure is greatly increased, blood-borne emboli pass through venous plexi and drift upwards to the venous sinuses of the skull. The pterygoid plexus, cavernous sinus, and pharyngeal plexus communicate with the vertebral system, and may transport tumor cells to the nose [10]. The conspicuous position of the nose may induce a patient to complain of a lesion there, whereas other signs and symptoms of illness might be ignored. Hence, although rare, a nasal tip mass may be the first sign of widespread malignancy. It is interesting that both cases of nasal tip metastases described in the literature presented with no symptoms attributable to the primary tumor, although these developed soon afterwards. In the present case, the patient complained of nasal obstruction as well as of worsening of the locally recurrent tumor. As to treatment in such cases, a case of a metastasis from esophageal cancer was treated with resection, followed by plastic surgery [11]. However, metastases to the nasal tip from gynecologic malignancies have a poor prognosis. We performed high dose focal irradiation, with reduction in the size of the tumor.

REFERENCES