PRIMARY MALIGNANT MELANOMA OF THE VAGINA: CLINICAL, PATHOLOGICAL AND IMMUNOHISTOCHEMICAL STUDIES OF 9 CASES

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Nine cases of vaginal primary malignant melanoma were diagnosed and treated in Zhejiang Cancer Hospital from 1964 to 1990. The mean age of patients was 48.6 years. Abnormal vaginal bleeding was the incipient symptom in 6 patients. Five cases of malignant melanoma located in the lower one-third of the vagina. Five patients had the tumor in size larger than or equal to 4 cm in diameter. All of them were of the cauliflower-like, nodular configuration grossly. The surface of the mass demonstrated in a variable degree of black or grey-blackish in 7 patients. The histological appearances were similar to those in the skin. Sections of 4 cases indicated only few or no melanin under microscope. The covering epithelial changes of 3 vaginal primary malignant melanoma resembled that of malignant melanoma in situ. All sections of 9 cases showed positive reaction to S-100 protein and negative to CEA immunohistochemically. This article laid emphasis on the origin, diagnosis and treatment of this tumor, and make discussion in conjunction with the literature.

Key words: Vagina, Malignant melanoma, Immunohistochemistry.

Primary malignant neoplasm in the vagina is of infrequent occurrence and the primary vaginal malignant melanoma is very rare, up to now with approximately fewer than 150 cases reported in the literature, and the overwhelming majority of the reported cases are isolated case report. We have not yet got enough knowledge on the vaginal primary malignant melanoma due to its specific location and rare occurrence, therefore we studied 9 patients with vaginal malignant melanoma diagnosed and treated in our hospital from 1964 to 1990 on the clinical, pathological and immunohistochemical aspects in conjunction with literatures to gain further insight into their clinical features and biological behaviours.

MATERIALS AND METHODS

Nine cases of pathologically proven primary malignant melanoma of the vagina in the Gynecologic Department of our hospital (excluded the secondary deposits extending from the rectum, cervix and vulva, or metastasizing from distant organs) were collected, and we reviewed the
clinical presentation and histologic appearance. In addition tumor thickness from the most superficial layer of epithelium vertically to the deepest point of tumor penetration of vaginal wall was remeasured. Sections were prepared for Fontana Stains, depigmentation of melanin, and ABC immunohistochemical method for S-100 protein CEA (DAKO Co. Ltd, the work concentration is 1:300). All sections had blank negative control and the corresponding type of positive control separately.

RESULTS

Clinical Data

The clinical characteristics of the whole group of patients were shown in Table 1. Table 1 indicated that the mean age of patients with vaginal malignant melanoma was 48.6 years, with five patients over age 50 years (55.6%). Six patients (66.7%) had abnormal vaginal bleeding, 2 patients (22.2%) had mass and one asymptomatic patient was detected by physical examination. Malignant melanoma involving the lower one-third of the vagina was in 5 patients (55.6%), the whole length of vaginal wall in 2 patients, and the anterior wall and posterior wall each one. The tumor size was larger than or equal to 4 cm in diameter in 5 patients, less than 4 cm in 4 patients. Surgical resection combined with or without chemotherapy in initial treatment was 4 patients (3 patients performed local excision and one radical resection); radiation therapy was adopted in two patients (one patient combined with operation and postoperative chemotherapy); Simple chemotherapy was used in one patient; the remaining patients refused a further treatment after pathological diagnosis.

<table>
<thead>
<tr>
<th>Case</th>
<th>Age (yr)</th>
<th>Symptom and sign</th>
<th>Location of lesion</th>
<th>Tumor size (cm)</th>
<th>Tumor depth of infiltration (mm)</th>
<th>Treatment</th>
<th>Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>37</td>
<td>A mass in vaginal orifice for 1 month. Vaginal contact bleeding for 1 week</td>
<td>Lower 1/3 of left lateral wall</td>
<td>3</td>
<td>5</td>
<td>Total hysterectomy, Bsalpingoophorectomy, wide vaginectomy and binguinal lymphnode dissection. Posto- perative chemotherapy (Cisplatin, Vincristine, Comustine)</td>
<td>Free of disease, survival for 10 months after operation</td>
</tr>
<tr>
<td>2</td>
<td>54</td>
<td>Vaginal bleeding for 8 years yellow discharge for 2 months, lymph node enlargement in both groin</td>
<td>Lower 1/3 of left posterior later wall</td>
<td>3</td>
<td>4.5</td>
<td>Local resection (tumor selfimmunity)</td>
<td>Death in 12 months after operation</td>
</tr>
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