CASE REPORT
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MUCOEPIDERMOID CARCINOMA OF THE CERVIX: A CASE REPORT

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Primary mucoepidermoid carcinoma (MEC) is a very uncommon tumor in uterine cervix. Most has been introduced in the salivary gland, but this tumor can arise from other organs. Primary MEC in the cervix is morphologically similar to that of the salivary gland. We experienced one case of primary cervical MEC of 44-year-old women. The cancerous mass was found in the anterior lip of the cervix without any extension. The radical hysterectomy, right salpingoophorectomy and pelvic lymphadenectomy by laparoscopic method were performed. On pathologic reports, tumor was suggested to be MEC of the cervix, International Federation of Gynecology and Obstetrics stage IB1 without risk factors. We had decided to observe closely without adjuvant therapy. But multiple metastases including local and distant sites were noted 4 months after the primary surgery. We decided to start concurrent chemoradiation with paclitaxel-carboplatin. But she expired after 19 months of primary surgical treatment. We report this case with the brief review.

Keywords: Uterine cervix; Mucoepiodermoid carcinoma; Cervical cancer

The mucoepidermoid carcinoma (MEC) is an epithelial malignant tumor that Stewart et al. [1] first described as a salivary gland tumor. MEC is very common in salivary gland, but is rare in the cervix. It composes 30% of malignant tumors rising in major or minor salivary glands [2]. And other organs such as lung [3] and esophagus are also known as primary tumor site. We experienced a case of primary MEC in the cervix, and reported the case in this review as the first report in Korea.

Case Report

A 44-year-old female visited to Samsung Medical Center due to abnormal finding in cervical biopsy on routine screening. The pathologic finding of punch biopsy was MEC. She had no specific symptom. Under gynecologic examination, about 2 cm-sized cancerous mass was noted in anterior lip of cervix. The mass was located only in cervix not extended to vagina or parametrium. Abdomen-pelvis magnetic resonance imaging (MRI) showed 2.6×1.8×0.9 cm-sized cancerous mass arising from anterior lip of uterine cervix with possible invasion to upper vagina (Fig. 1). The radical hysterectomy, right salpingoophorectomy and pelvic lymphadenectomy by laparoscopic method were performed. Grossly, there was a relatively well demarcated mass, measuring 2×1.7×1.5 cm. It was confined within the cervix (Fig. 2). Histopathological examination showed that tumor was composed of squamous, intermediate and mucin secreting cells that together formed a variety of patterns with necrotic background. Mucin secreting cells showed clear vacuolated cytoplasm forming solid sheet pattern. The malignant cells had prominent nucleoli and pleomorphic nuclei suggestive of high grade tumor. There was no metastasis to regional lymph node. Both resection margins were tumor free. Therefore, the patient was diagnosed as cervical MEC,

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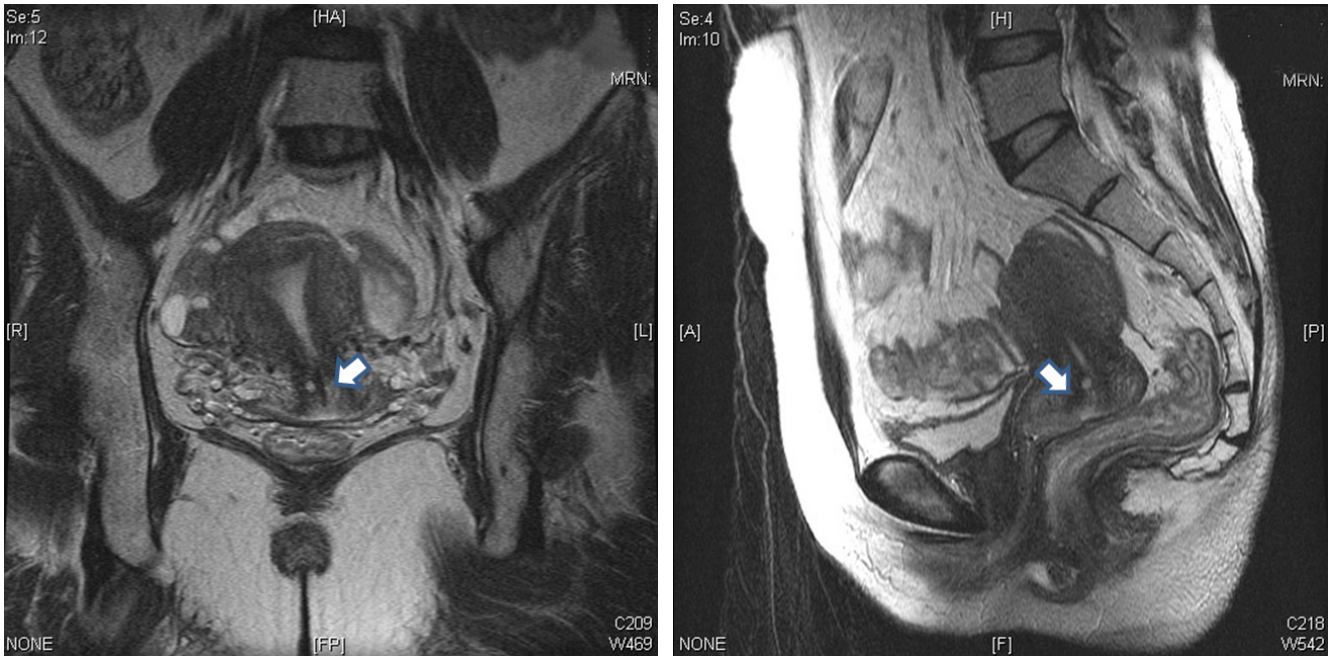


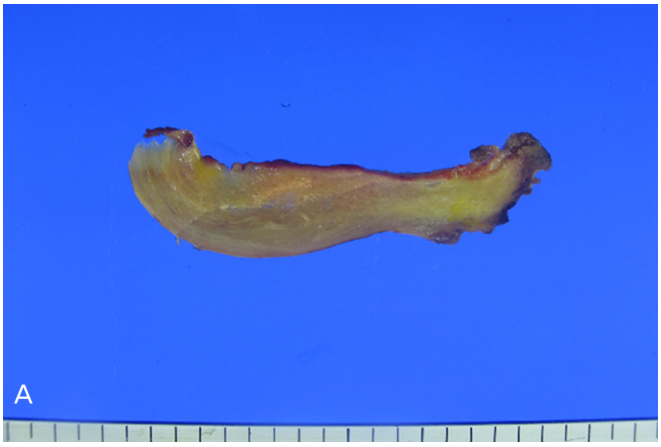
Fig. 1. Abdomen-pelvis magnetic resonance imaging showed 2.6×1.8×0.9 cm-sized cervix cancer (white arrow) arising from anterior lip of uterine cervix with possible invasion to upper vagina.

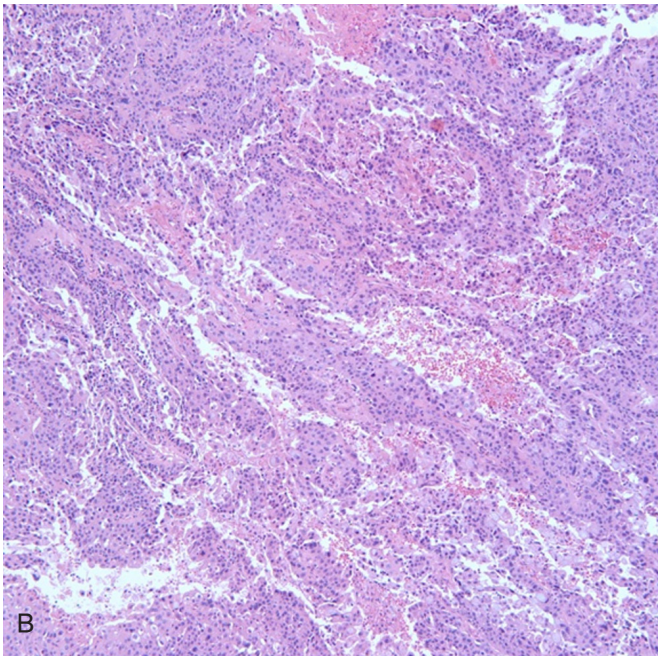
International Federation of Gynecology and Obstetrics (FIGO) stage IB1 without any risk factors. We had decided to closely observe without adjuvant therapy. She complained left flank pain and bowel habit change 4 months after the primary surgical treatment. After evaluation, about 8.5 cm-sized heterogeneous mass were found in left side of vaginl stump and, near to this cancerous mass, 2.3 cm-sized lobulated mass were also noted. Those masses had invaded into left distal ureter causing hydronephroureterosis. Multiple metastatic lymph nodes were noted in para-aortic area, pelvic cavity and mesocolon. We planned to start concurrent chemoradiation (CCRT) with paclitaxel and carboplatin. During CCRT, recurrent vaginal mass showed interval improvement with decreasing tumor size. One month after CCRT, the size of previous mentioned cancerous mass in vaginal stump increased and the mass invaded into the left wall of pelvis and posterior wall of urinary bladder. Radiotherapy was not indicated for treating recurred masses. We started the palliative chemotherapy with irinotecan and cisplatin. Despite the effort of our management, recurred mass in vaginal stump was aggravated and new masses in the right pelvic cavity, left common iliac lymph node and right perirectal lymph node were noted. The multiple metastatic tumors were very aggressive and had resistance in chemotherapy. After all, she expired after 19 months of primary surgical treatment.

Discussion

MEC in the cervix is included in invasive carcinoma, which is similar to its salivary counterpart. There are several previous reports about cervical MEC [4,5]. The morphology is similar between cervical and salivary gland MEC. MEC of cervix is a controversial entity. MEC is a kind of adenosquamous carcinoma and its frequency in cervical cancer is not documented [6]. But recent reports demonstrate that the tumor diagnosed as MEC according to morphologic criteria have genetic mutations involving the genes characteristically rearranged in the salivary glands. Those reports suggested that the cervical MEC is unique entity distinct from cervical adenosquamous carcinoma [7]. Thelmo et al. [5] mentioned that mucoepidermoid carcinoma was more aggressive cancer. Twelve women were followed for 2 to 15 years. Three women died within one year. All patients had lymph node and vascular metastases. Several other papers have reported that MEC of cervix also has different clinical manifestation [5], including frequent metastasis and sensitivity to radiotherapy compared with adenosquamous carcinoma of cervix [8]. But, MEC of cervix is not divided from cervical adenosquamous carcinoma. Since the diagnosis of cervical MEC bring therapeutic significance, the morphologic criteria to distinguish cervical MEC from adenosquamous carcinoma is important.

There is no standard treatment in cervical MEC because of a





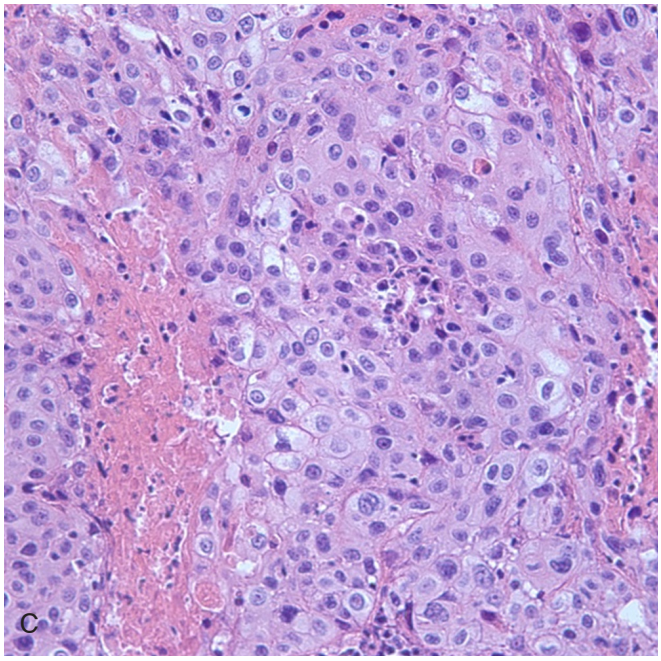


Fig. 2. Pathology finding. (A) On longitudinal section of uterine cervix, there was a relatively well demarcated mass within lower cervix, measuring 2×1.7×1.5 cm. (B) Tumor was composed of squamous, intermediate and mucin secreting cells that together formed a variety of patterns with necrotic background (H&E, ×100). (C) Mucin secreting cells show clear vacuolated cytoplasm forming solid sheet pattern. The malignant cells have prominent nucleoli and pleomorphic nuclei suggestive of high grade tumor (H&E, ×400).

controversial entity and limited data. In general, cervical cancer treatment is different in each stage. In earlier stage, surgical resection is a choice. According to histopathologic risk factors, adjuvant radiotherapy or chemotherapy is needed.

In conclusion, we report a very rare case of MEC in the cervix and this is the first case reported in Korea. There is few report of this entity in cervix and treatment strategy. This case was aggressive in biological behaviors. MEC can present widely diverse behavior based on variety histological characteristics.

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자궁경부에 발생한 점액표피양암종: 증례보고

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원발성 점액표피양암종은 자궁경부에서 기원한 경우는 드문 것으로 알려져 있다. 점액표피양암종은 침샘에서 기원한 경우가 흔하며 자궁경부에서 기원한 원발성 점액표피양암종은 조직학적으로 침샘에서 기원한 것과 비슷하다. 44세 여환에서 자궁경부의 원발성 점액표피양암종을 경험한 것을 보고하겠다. 암성 종양은 질과 자궁주위조직으로의 침윤 없이 자궁경부의 전방에 위치하였다. 복강경하 근치적 자궁절제술, 오른쪽 부속기절제술 및 골반내 림프절절제술을 시행하였다. 병리 소견상 종양은 자궁경부의 점액표피양암종이며 병기는 IB1이고 다른 위험인자는 없어 보조 요법 없이 경과 관찰하기로 결정하였다. 그러나 수술 후 4개월 만에 다발성 전이암이 발견되어 paclitaxel–carboplatin을 이용한 항암방사선병행요법을 시작하였으나 수술적 치료 이후 19개월 만에 환자는 사망하였다. 이에 문헌고찰과 함께 1예를 보고한다.

중심단어: 자궁경부, 점액표피양암종, 자궁경부암