CONCURRENT CHEMORADIATION-RELATED SUPERIOR MESENTERIC ARTERY OCCLUSION IN THE PATIENT WITH ADVANCED ENDOMETRIOID ENDOMETRIAL CANCER AFTER SURGERY

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The incidence of endometrial cancer (EC) has increased and it has approximately 16% of gynecologic cancers in Korea. For loco-regional or distant recurrence, adjuvant treatment after surgery is very important in patients with intermediate- or high-risk EC (IHR-EC). Recently clinical trials for treating patients with IHR-EC are focused on the efficacy of concurrent chemoradiation (CCR). However, increase in intestinal complications in the group of radiotherapy combined with chemotherapy was reported. In case of chemoradiation-related superior mesenteric artery (SMA) occlusion, it could be fatal nevertheless with intensive care. We present a case report of radiation-related arteritis leading to stenosis in SMA, which led the patient with EC to death in a year after CCR.

Keywords: Endometrial neoplasms; Radiotherapy, adjuvant; Chemotherapy, adjuvant; Mesenteric vascular occlusion

Endometrial cancer (EC) is the most common gynecologic malignancy in the USA, and its incidence has increased to approximately 16% of gynecologic cancers in Korea [1]. More than 80% of patients have International Federation of Gynecology and Obstetrics stages I or II of the disease [2]. Although most patients with low-risk EC may be cured after surgery, those with intermediate- or high-risk endometrial cancer (IHR-EC) often show loco-regional or distant recurrence [3]. Therefore, adjuvant treatment after surgery is very important in patients with IHR-EC. Nowadays clinical trials for treating patients with IHR-EC are focused on the efficacy of concurrent chemoradiation (CCR) after a phase II study of the Radiation Therapy Oncology Group (RTOG 9708), which demonstrated that CCR may improve loco-regional control, and reduce extra-pelvic recurrence [4-6]. By the way, radiation-related arteritis (RRA) is a rare but well recognized complication of radiotherapy. A study reported increase in intestinal complications in the group of radiotherapy combined with chemotherapy [7]. We present a case report of RRA leading to stenosis in the superior mesenteric artery (SMA), which led the patient with EC to death in a year after CCR.

Case Report

A 62-year-old woman visited her physician complaining of vaginal spotting which started 5 years ago. She was transferred to our in-
Institution under the impression of EC. Endometrial biopsy revealed endometrioid EC (EEC), grade 1. Preoperative computed tomography (CT) implied EC without parametrial invasion or cervical invasion, and showed neither distant metastasis nor lymphadenopathy.

CA-125 level was elevated to 364.95 U/mL. A total hysterectomy, both salpingo-oophorectomies (TH+BSO), pelvic and para-aortic lymphadenectomy was done as cancer cells were found at para-aortic lymph nodes excised during operation. Permanent biopsy reported EEC grade 1, and the size of the tumor was 4.5 × 3.5 cm, and the cancer had metastasized to 13 out of 42 regional lymph nodes (LN) including paraaortic LN (Fig. 1). CCR was applied using doxorubicin and cisplatin for 2 times, and pelvis radiation using 10MV energy with total dose 3,240 cGy, daily tumor dose 180 cGy, 18 fractions for 5 weeks simultaneously. One day she came to

Fig. 1. This slide shows (A) endometrial cancer grade 1 (H&E, ×100), and (B) positive lymph node metastases (H&E, ×20).

Fig. 2. Simple X-ray films before operation. (A, B) Simple abdomen erect and supine showed normal finding but multiple surgical clips in mid abdomen. (C, D) Just before operation, simple X-ray hinted at ileus with diffuse edematous bowel wall thickening.

Fig. 3. CT showed small bowel ischemia with superior mesenteric artery thrombosis.