

Case Report

Locally Advanced Cervical Carcinoma Treated with Uterine Artery Embolization and Concurrent Chemoradiotherapy

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Abstract

Uncontrollable vaginal hemorrhage in patients with cervical carcinoma can be successfully managed by selective transcatheter embolization of the pelvic vessels. The impact of tumor embolization before definitive chemoradiotherapy for cervical carcinoma has not been well investigated. We report two cases of locally advanced cervical carcinoma with uncontrollable vaginal hemorrhage treated with uterine artery embolization (UAE) and concurrent chemoradiotherapy (CCRT).

Keywords: Artery Embolization; Cervical Cancer; Chemoradiation Synopsis: This case report described UAE before treatment for cervical carcinoma might not impact CCRT

Introduction

Patients with locally advanced disease (stages I B2-IV A) are at high risk for recurrence and account for the majority of cervical cancer deaths. An initiative to improve treatment outcomes of locally advanced cervical cancer culminated in [1] when the National Cancer Institute issued a statement that cisplatin-based chemotherapy in combination with radiotherapy represented the new standard of care [2].

Uncontrollable vaginal hemorrhage in patients with cervical carcinoma can be successfully managed by selective transcatheter embolization of the pelvic vessels. If such a measure is done before definitive radiotherapy it must, from a radiobiologic standpoint, be viewed with caution [3]. Intratumoral and regional oxygenation will be decreased and radioresistance increased in patients who typically present with advanced and poorly perfused primary tumors.

The impact of tumor embolization before definitive chemoradiotherapy for cervical carcinoma has not been well investigated. We report two cases of locally advanced

cervical carcinoma with uncontrollable vaginal hemorrhage treated with Uterine Artery Embolization (UAE) and Concurrent Chemoradiotherapy (CCRT) [4].

Case report

Case 1

A 46-year-old gravida 0, para 0 was admitted for uncontrollable vaginal hemorrhage caused by cervical carcinoma (stage III B squamous cell carcinoma). The tumor size was 6cm; the patient underwent selective artery embolization. A common femoral artery approach was used. Each uterine artery was selectively catheterized and embolized with gelatin sponge particles and platinum interlocking detachable coils until blood flow ceased almost completely. The patient was treated with UAE and CCRT including six cycles of paclitaxel (50 mg/m²) and cisplatin (30 mg/m²) once a week and external beam radiotherapy with 50 Gy to the whole pelvis as well as irradiation to the cervix by brachytherapy with 25 Gy. Lung metastases were found 17 months post-CCRT; however, no evidence of pelvic recurrence was found [5].

Case 2

A 63-year-old gravida 2, para 2 was admitted for uncontrollable vaginal hemorrhage caused by cervical carcinoma (stage III B squamous cell carcinoma). The tumor size was 8cm. The patient was treated with UAE and CCRT as above Case1. Two years post-CCRT, no evidence of recurrence was found, and the patient was in good health (Figure 1, 2).

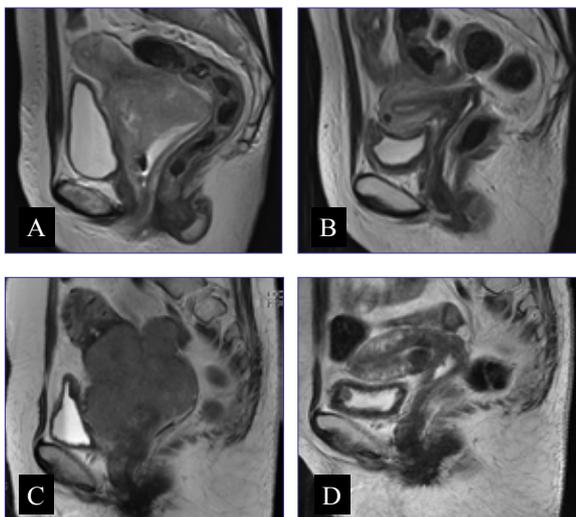


Figure 1. (A) case 1: Sagittal T2-weighted magnetic resonance image reveals an 6-cm cervical tumor. (B) case 1: Follow-up magnetic resonance image confirms disappearance of the cervical tumor after CCRT. (C) case 2: Sagittal T2-weighted magnetic resonance image reveals an 8-cm cervical tumor. (D) case 2: Follow-up magnetic resonance image confirms disappearance of the cervical tumor after CCRT.

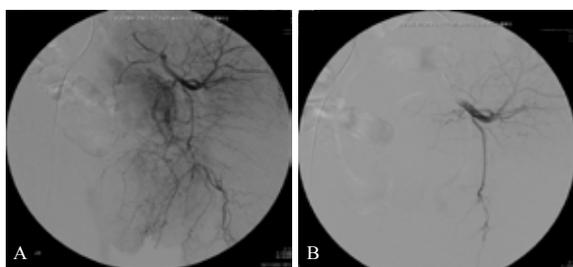


Figure2. case 2: (A) Angiogram showing uterine artery before embolism. (B) Angiogram showing uterine artery after embolism.

In conclusion, our two cases were locally advanced cervical carcinoma treated with UAE and CCRT with good pelvic control of disease. It is our impression that UAE before treatment for cervical carcinoma might not impact CCRT.

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