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Case Report

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One Case of Interventional Chemoembolization Treatment of Small Cell Neuroendocrine Cervical Cancer

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Abstract

Small cell neuroendocrine cervical cancer (SCNEC) is some kind of rare malignant cancer of the cervix area. In 1997, according to the research of International Cancer Institute and the American Association of Pathology, the pancreatic endocrine tumors can be sorted into four types by the morphological similarity compared with tumors of the same type in the lung: typical carcinoid, non-typical carcinoid, large cell neuroendocrine cancer, and small cell neuroendocrine cancer, in which the last one is the most previaling. The SCNEC recurs much more often and its distant metastasis is more common in the lungs, brain and liver[1][2]. It characterizes low incidence and few cases, and a retrospective study is commonly used. Without clinical experience, there have been no fair treatment so far. A patient diagnosed as SCNEC A2 period was treated in our hospital, and uterine artery embolization chemotherapy, a new treatment, was taken to her. Consequently, the treatment worked, creating significant surgical conditions for her. Moreover, postoperative examination showed obvious effect of this treatment. The case report is as follows:

Clinical Information

The patient was a 48-year-old woman who came to the hospital due to "Irregular vaginal bleeding for 8 months and intensifing for 5 months". After her admission, it was painful for the patient to urinate and catheterization was used to introduce urine. Additionally, she had no smoking history. Physical examination: a diameter of about 10cm tumor filling could be seen in the middle-up part of her vagina. The tumor had a close relationship with cervix, and it seemed to be a gap between 12:00 to 2:00. And the remaining connected with each other tightly. The tumor tissue was brittle and looked like rotten meat with stench, and active bleeding can be seen in the surface. The right side of parametrium became thick. Due to tumor occlusion, the uterus and bilateral annex remained unclear clinically. Trimanual examination: Tumor was convex to the rectum, rectal smooth, no bloody on the fingerstall, and the remaining was the same with the result of bimanual examination. Biopsy from cervix was taken to the pathology. Gynecologic ultrasonography: internally below the uterus, the size of the hypoechoic nodules of about 10.0cm × 9.5cm could be explored, and the border was clear but echo washeterogeneous.CFDI: plentiful tumor blood flow signal. Cervical biopsy: (cervix) malignant cancer. It could be diagnosed as SCNEC with immunohistochemical results. Immunohistochemistry: Syn(+), Cyn(-), Vim(-), CK(+), the positive rate of Ki67 was about 90%, which supported the above diagnosis.Ultimately, the patient was diagnosed as SCNEC A2 period. Squmaous Cell Carcinoma Antigen (SCCA): 1.8ng/ml. On 23nd Oct. 2015, uterine artery embolization chemotherapy was operated to the paitient. Verginal ultrasonography on the 13nd Nov. 2015: cervix increased in size with plump shape. Moveover, heterogeneous echo area with the range of 8.3cm×7.0cm×7.0cm could be seen, and its border was not so clear with heterogeneous internal echo. Rod-like hyperechoic was visible. CDFI: a few visible blood flow signals. After her returning to the ward, a sizeof7.0cm × 4.5cm×4.0cmwhite cervicalneoplasm shed atuomayically. Shedding pathology showed homogeneous powderdye with calcification and no clear epithelial cells. Preoperative examination on 18th Nov. 2015 showed that the size of tumor behind cervix was about 4.0cm×4.0cm×4.0cm with the crisp feature, and it bled when touched. Anterior fornix became shallow. There existed a sense of nodule on the surface and no more thickness of bilateral parametrium appeared. The size of uterus was normal and could be moved without tenderness. And bilateral annex wasnormal. Trimanual examination showed that bilateral utero-sacral ligament remained no thickness with smooth rectal and there was no blood on the gloves. On 19th Nov.2015, under general anesthesia, abdominal hysterectomy, double-sided ovarian resection, aortic and pelvic lymph node dissection were performed. Neuron-specific enolase(NSE) one day after the operation: 16.11ng/ml. Neuron-specific enolase (NSE) ten days after the operation: 11.95ng/ml.

Pathologic Results

- Pathological biopsy showed that: (cervix) malignant cancer, it could be diagnosed as SCNEC with immunohistochemical results.

- Immunohistochemistry: Syn(+), Cyn(-), Vim(-), CK(+), and about 90% positive rate, which supported the above diagnosis.
- Shedding pathology showed homogeneous powder dye with calcification and no clear epithelial cells.
- Postoperative pathology: SCNEC. Most cancerous tissue was removed (automatically dropped), little residual carcinoma invaded the submucosa,and plentiful granulation and necrotic tissue could be seen, which extended to deep myometrial. There were no cancer involvement on the left and right uterine margins and vaginal margins

Discussion

SCNECaccounts for 0.31% to 2.00% among cervical cancers[3].It has close relationship with the incidence of human papilloma virus 18 HPV18 infection. Cardinal symptom included that it may have no symptoms, but often shows as irregular vaginal bleeding, fluid flow and vaginal bleeding between periods[4]. Moveover, SCNEC's prognosis is in the poor condition. It often causes local invasion and distant metastasis[4]. It is reported that the five-year survival rate of FIGO stage I-IIA, IIB-IVA, and IVB is 36.8%, 9.8%, 0%[1]. The diameter of local tumor of cervix≥4cm and clinical stage≥B2 are adverse factors affecting the prognosis.

It is difficult to diagnose SCNEC before operation[3]. This case is definitely diagnosed as SCNEC through pathology examination. Traditional treatment for cervical cancer is not suitable for SCNEC, so this kind of treatment was abandoned.Such comprehensive treatments as chemotherapy, surgery, radiotherapy are superior to surgery and radiotherapy[4].Due to the fact that SCNEC is rare and has a few cases, there exists no unified treatment. At present,I-IIA is advocated to usein the early stage by radical surgery combined with chemotherapy, advanced IIB-IVB by chemotherapy[5][1].

The tumor size of this patient was large, and her uterine tissue was vulnerable to the violation, which caused great difficulties to the surgery.I B2and II A2 patients can be firstly operated with radical surgery and then taken neoadjuvant chemotherapy.Thediameter of cervical tumor of this patient was about 10cm, and urethra was compressed, which caused urinary difficulties so neoadjuvant chemotherapywas hard to achieve the desired effect.Interventional chemoembolization is quite suitable for such patients, which can significantly reduce the size and scope of the tumor[6].

This treatment is safe and reliable in terms of technology, and can improve the clinical symptoms and the quality of life, which can be considered as preoperative adjuvant therapy of advanced cervical cancer[1]. It can also improve the clinical effciency and reduce the incidence of adverse reactions. Therefore, this case of SCNEC was treated with interventional chemoembolization. This method was effective for the patient. Necrotic lesions was significantly reduced,and difficulty in urinating was quickly reduced. The reducement ofoppressive difficulty in urinating may have a relationship with vascular occlusion and necrosis. Increasing the rate of tumor resection may improve patient's life condition.

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