The Case of a Locally Advanced Endometrioid Adenocarcinoma arising from Vaginal Endometriosis

Diagnosis and Multidisciplinary Treatment

MA. Costanza, A. Wolfer, TM. Alvarez Flores, F. Herrera, P. Mathevet, A. Sarivalasis

INTRODUCTION

Endometrioid adenocarcinoma associated with endometriosis is a rare gynecological malignancy.

Chronic endometriosis is most commonly associated with clear cell neoplasms. The treatment in this setting usually follows ovarian cancer guidance. Rarely, endometriosis can be complicated with endometrioid carcinoma. According to the literature, any abdominal structure can be involved. The vagina is rarely reported as the primary location of endometrioid adenocarcinoma associated with endometriosis with only six cases published in the last 20 years none of them with lymph node involvement. In this setting, staging and treatment references are missing. Here we present the diagnosis, surgical and adjuvant treatment of a patient with an endometrioid adenocarcinoma arising from endometriosis of the vaginal fornix with nodal involvement and extension to the Douglas pouch and rectal wall.

HISTORY AND DIAGNOSIS

A 56 year old patient with a medical history of bilateral oophorectomy for endometriosis in 2002 was admitted to our gynecological department for investigation of progressive perineal pain with vaginal discharge developing over 5 months. Pelvic MRI and a PET-CT identified a 3.8cm mass of the posterior vaginal fornix infiltrating the posterior structures, the Douglas pouch and possibly the rectal wall. There was no evidence of uterine involvement nor nodal or distant metastasis.

SURGERY AND PATHOLOGY

Surgery : A surgical debulking including laparoscopic posterior exenteration with bowel anastomosis and ileostomy, bilateral pelvic lymph-node dissection and vaginal reconstruction was performed. The post-operative course was free of complications.

Pathology: Grade1, endometrioid adenocarcinoma, measuring 30mm, infiltrating the perirectal fat but not the muscular layer, developed on an ectopic endometrial tissue. There was no lymphovascular (LVI) or perineural (Pn) invasion. The surgical margins were free of tumor. On the immunohistochemistry, the tumor expressed CK7, ER and p16 but lacked CK20 and WT1 stain. The pelvic lymph node dissection examination confirmed the involvement of one lymph node out of 25 (1/25)

CHEMOTHERAPY AND RADIOTHERAPY

For this locally advanced ectopic endometrial adenocarcinoma, there is no specific staging system nor treatment guideline. The literature review for similar cases provides only scarce evidence, therefore we extended our research to endometrioid adenocarcinomas arising from endometriosis loci of other abdominal localization. Of the 13 published cases, three presented with nodal involvement and 8/13 had documented adjuvant treatment with chemotherapy and radiotherapy. The median progression free survival (PFS) of the treated cases was 24months [0-60] and 10months among the three cases with nodal involvement.

Based on these findings, for this high risk of relapse setting, we decided a sequential adjuvant treatment with 4-6 cycles of carboplatinum AUC5 – paclitaxel 175mg/m² chemotherapy followed by EBRT and Brachytherapy. This approach was inspired by stage III endometrial carcinoma treatment. Because of a life threatening anaphylactic reaction on cycle one, despite adequate premedication, the paclitaxel was changed for a weekly nab-paclitaxel 100mg/m² treatment. The toxicities observed with the carboplatinum – nab-paclitaxel combination were manageable. After completing 4 cycles of chemotherapy, the patient received radiotherapy of 45Gy in 25 fractions of 1.8Gy and Brachytherapy in two 5 Gy fractions.

Hematological	
Adverse Events	Maximum grade (CTCAEv4.0)
Leukopenia	3
Neutropenia	4
Thrombocytopenia	3
Anemia	3
Febrile Neutropenia	0

Non - Hematological	
Adverse Events	Maximum grade (CTCAEv4.0)
Fatigue	2
Nausea	1
Diarrhea	1
Mucositis	1
Sensory Neuropathy	1

CONCLUSION

Endometrial adenocarcinoma associated with endometriosis is a rare gynecological malignancy. The decision of a sequential chemo-radiation treatment as indicated for classic uterine endometrioid adenocarcinoma needs to be personalized. In our case, the patient is free from relapse one year after the completion of her adjuvant treatment. She has recovered from her vaginal and bowel surgery. The substitution of the three weekly schedule of chromophore diluted paclitaxel, with a weekly schedule of nab-paclitaxel is feasible and globally well tolerated but further study is necessary to determine the equivalence of this weekly, dose dense, approach in this setting.

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