Case report

primary malignant mixed mullerian tumor arising from retroperitoneum with a metachronous endometrial cancer:a case report

AnahitaNosrati [1],Zhila torabizadeh[1]*, ZeinabNazari [2], NedaSajadi[1], Milad Bahari[3]

1. Departmant of pathology,Imamhospital,Mazandaran university of medical sciences,Sari
2. Departmant of gynecology,Imamhospital,Mazandaran university of medical sciences,Sari
3. Medical Student , Faculty Of medicine, Student Research Committee, Mazandaran University Of Medical Sciences, Iran

Corresponding author; Dr Zhila torabizadeh
zhtorabi@yahoo.com

Abstract
Extragenital malignant mixed Müllerian tumor is an extremely rare presentation of malignant mixed Müllerian tumor, especially when combined with a metachronous endometrial cancer.
We report the clinical course and pathologic findings of a case of retroperitoneal Malignant Mixed Müllerian Tumor with metachronous endometrial cancer, in a 64-year-old, gravid 6, Para 7, live 6, death 1 with a complaint of post menopausal bleeding.This is the case of extragenital Malignant Mixed Müllerian tumor combined with metachronous malignancy reported.
Although extragenital Malignant Mixed Müllerian Tumor is very rare and has a poor prognososis, a longer survival time might be achieved by recognizing them in that rare site in advance and treating them by cytoreductive surgery, radiotherapy and chemotherapy.
key words : malignant mixed mullerian tumor, endometrial cancer, retroperitoneum,carcinosarcoma.

1. Introduction

The HMG-CoA lyase (HL) deficiency or 3-hydroxy-Malignant Mixed Mullerian Tumor (MMMT) or Carcinosarcomais an uncommon tumor and highly aggressive in females and the occurrence of this disease out side the genital tract is extremely rare.[1]
MMMT is a biphasic neoplasm comprising of both carcinomatous (epithelial tissue) andsarcomatous (connective tissue)components .It is divided into 2 types ,homologous (in which the sarcomatous component is made up of tissues found in the uterus such as endometrial ,fibrous or smooth muscle tissue) and a heterologous type (made up of tissues not found in uterus ,such as cartilage, skeletal muscle or bone)[2].The endometrium is generally reported as the most common site of MMMT.[3]MMMT mostly occurring in the female genital tract in elderly postmenopausal women .Furthermore,they have also been described in head and neck, gastrointestinal tract, biliary tract and peritoneum.[4] .
MMMT of extragenital origin was first reported by Ober and Blach in 1955[5]. In a review of the English literature since 1955 to 2011,only 49 cases of extragenital MMMT have been reported.16 out of these 49 (32.7%)extragenitalMMMTs[1] were associated with synchronous or metachronous colonic cancer or gynecologic malignancy and serous carcinoma of the peritoneum[6].We reported the clinical course and pathologic findings of an extragenital MMMT arising from retroperitoneum with a metachronous endometrial cancer in a post menopausal woman,we then performed a brief literature review about this rare tumor

2. Case presentation:

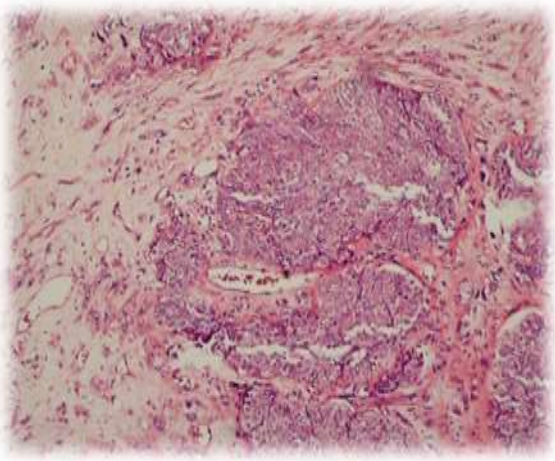
The patient was a 64-year-oldwoman ,gravid 7 , para 7 ,live6,and death 1 (G7P7L6D1) was admitted with a complaint of post menopausal bleeding 6 months ago .No other symptoms were recognized .She has been suffering from diabetes mellitus and hypertension for 5 years.Regarding familial history, no evidence of the other diseases werefound .Physical examination showed no abnormal sign .All hematologic and biochemical laboratory tests were within normal limit.Sonography of pelvis showed mild increased in uterine size measuring 82x 50 x33 mm and diffuse endometrial thickening .Endometrial cavity partially occupied by a mass-like lesion measuring 28mm in maximum dimension with vascular flow . Myometrial echo was normal . D & C was done and pathologic report was endometrioid uterineadenocarcinoma,welldifferentiated .Patient underwent total abdominal hysterectomy plus bilateral salpingooophorectomy with lymphadenectomy and omentectomy .Pathological

study showed a malignant epithelial neoplasm composed of back to back(crowded) and irregularly pleomorphic glands with foci of papillary architectures lined by neoplastic cells. These cells have vesicular to hyperchromaticnuclei ,occasionally prominent nucleoli and modest cytoplasm .Tumor invaded stroma and reached to superficial muscularis layer (Stage:IB) .No further treatment was performed after the first operation. The patient was admitted 6 months later for the fallowing symptoms such as abdominal pain, constipation and bowel obstruction symptom.On physical examination, a lower abdominal mass was palpated.Colonoscopy was normal.Computed tomography scan of pelvis showed a huge mass with central necrosis measuring 10cm in maximum dimension located between rectal and bladder walls .The tumoral mass invaded to adjacent structures .In addition,a smaller mass measuring 7cm in maximum dimension in left superior part of the pelvis is identified. Ultrasound –guided core needle biopsy of the both pelvic masses was done and pathologic examination came up with carcinomatous involvement, so the patient was re-operated.In macroscopic examination,retroperitoneal masses were composed of several pieces of cream-brown elastic tissue with foci of necrosis and hemorrhage, totally measuring 8x6x5.5cm. The mass of omentum was intact measuring 10x7x3cm (Figure-1).Cut surfaces were solid and showed foci of necrosistoo.Pathologic study showed a biphasic malignant neoplasm composed of carcinomatous and sarcomatous(stroma-likeelements.)

Figure 1 :Macroscopic examination of the omental mass ,MMMT

The carcinomatous component including nests and sheets of the epithelial tumor cells with no glandular structures,squamous metaplastic cells were also seen.These cells hadhyperchromaticto vesicular pleomorphic nuclei,prominent nucleoli and eosinophilic cytoplasm.Foci of necrosis andsome mitotic figures were evident .Sarcomatous component composed of sheets of discohesive tumor cells characterized by hyperchromatic to vesicular nuclei, prominent nucleoli and clear cytoplasm.Frequent mitotic figuers, giant and bizarre cells were also noted .The stroma of the sarcomatous component showed foci of myxoid degeneration.

Figure 2 Histological picture showing the admixed carcinoma and spindle cell sarcomatous elements (H&E x400)



3. Discussion:

Malignant mixed mullerian tumors or carcinosarcomas of the uterus arerare neoplasms that are practically always seen inpostmenopausal patients[7]. MMMT of extragenital origin is even rarer.[8]MMMT most frequentlyoccurs in the endometrium, vagina, cervix, and ovary in descending order of frequency [9,10].The symptom triadindicative of MMMT includes pain, severe vaginalbleeding and passage of necrotic tissue pervaginum[11]. Since histological evaluation shows bothcarcinoma (epithelial) and sarcoma (mesenchymal) components,thisdisorder is also named carcinosarcoma. ExtragenitalMMMT can occur at any site of peritoneum and is onetype of primary peritoneal carcinomas (PPC) which wasfirst described by Swerdlow in 1959 [8]. It has the characteristicsof involvement in the peritoneum by carcinomawithout an obvious primary site [12].

The majority of PPCs present in pathology as serouspapillary carcinomas, as well as peritoneal mixed epithelialcarcinomas, while the extragenital MMMTs are rarelyreported. PPC is a rare cancer closely related to epithelialovarian cancer and develops in cells from the lining ofthe pelvis and

abdomen (peritoneum). These cells aresimilar to the cells on the surface of the ovaries. Likeovarian cancer, PPC tends to spread along the surface ofthe pelvis and abdomen. Symptoms of patients with PPC includingabdominal pain or bloating, nausea, vomiting, indigestionand change in bowel habits [13].Most PPCs are serous papillary adenocarcinomas witha relatively good prognosis but the primary peritonealMMMT, a rare type of PPC, usually has an unfavorableoutcome according to the previous literature [14].

MMMT of extragenital origin was first reported byOber and Black in 1955 [5] and, until now,to the best of our knowledge, only 48cases have been reported in the English literature. It hasbeen reported to have arisen from the peritoneum,mesentery, omentum, spleen, diaphragm and retroperitoneum.

Among all the reported cases, the majority were menopausal women with a median age of 62.8 years (range 33-87 years). Sixteen of the 49 patients(32.7%) presented with synchronous or metachronousmalignancies including colonic (three cases), ovarian (six cases including the present case), fallopian tubal (threecases), endometrial (two), cervical (one) and one synchronousserous carcinoma of the peritoneum. In our case, endometrial carcinoma metachronously was seen with carcinosarcoma of retroperitoneum. Due to ahigh incidence of synchronous or metachronous coloniccancer or gynecologic malignancy originating from the müllerian duct, clinicians should carefully check thegenital tract in detail during the resection of primaryMMMT..

Little information about the management of extragenitalMMMT is available. All suggestions for the treatment ofextragenital MMMT are based on individual cases.Treatments including cytoreductive surgery and chemotherapyhave been reported. Surgicalmanagement isusually ncessary due to the clinical presentationcaused by the mass effect. However, a radical surgical treatment is often obtained with difficulty. It seems thatchemotherapy is more important than surgical treatmentand the treatment choice of MMMT is similar tothat of genital MMMT[15].

Our patient got surgery and radiotherapy too.We introduced a 64-year-old woman which was diagnosed with metachronous endometrial carcinoma and retroperitoneal MMMT which was reported just in few previous other studies[6].Therefore, it is worth closely following the patients especially in the long term.

So in a Conclusion extragenital MMMT is extremely rare malignancy and has a poorprognosis due to its aggressive biological behavior. Synchronousor metachronous gynecologic tumors often existand a detailed examination of the genital tract must bemade before and during the operation. Moreover, improved survival time would probably be achieved ifaccurate diagnose and aggressive treatment, includingcytoreductive surgery and chemotherapy are applied in advance.

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Corresponding Author:
Dr Zhila torabizadeh
Departmant of pathology,Imamhospital,Mazandaran university of medical sciences,Sari

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