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Uterine Carcinosarcoma: A Rare and Challenging Cancer

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Abstract:- Uterine carcinosarcoma is a rare and highly aggressive malignancy.[1] The prognosis is often poor. The clinical presentation of the uterine carcinosarcomas is nonspecific, and imaging and pathology studies play an important role in diagnosis.[2] In this study, we are exposing the clinical, paraclinical and therapeutic aspects of patients with uterine carcinosarcoma treated in the radiotherapy department of Hassan II university hospital center, and discuss our results with literature data.

Keywords:- *Carcinosarcoma, Diagnosis, Management.*

I. INTRODUCTION

Uterine carcinosarcomas is considered as rare tumor. It counts for less than 5% of uterine malignancies. It is considered as high-risk form of endometrial adenocarcinoma[1]that got similitudes with endometrial carcinoma more than with uterine sarcomas(epidemiology, risk factors, clinical behavior).[1] The standard management of carcinosarcomas consist in surgical staging [2] the indication of adjuvant treatment (chemotherapy, radiotherapy and brachytherapy), depends on histological stage.[4]

We aimed in our study to expose clinical, paraclinical and therapeutic aspects of patients with uterine carcinosarcoma treated in the radiotherapy department of Hassan II university hospital center.

II. PATIENTS AND METHOD

It is a retrospective study carried out in the radiotherapy department of Hassan II hospital in Fez between January 2017 and December 2020 on women presenting an uterine carcinosarcomas. All of our patients were over 18 years old and had a diagnosis of carcinosarcoma confirmed by pathological examination. The patients were listed via the service register and the data collected on the basis of hospital network [HOSIX] and paper file of each patient. The data was entered and analyzed by the epi-info software version 3.5.2011.

III. RESULTS

A total of 13 patients were carried for a uterine carcinosarcoma in the radiotherapy department of the Hassan II hospital in Fez between January 2017 and December 2020. The median age was 62 year-old [56-80]. Great multiparity was found in 75% of cases. All of our patients were postmenopausal and the median time from menopause to diagnosis was 13 years. The most common medical issues were diabetes and blood pressure. 89% of our patients had a body mass index (BMI) ≥30.

The median delay for condultation was 6 months. Post-menopausal bleeding was major symptom for consultation. The gynecological examination found an increased in uterus size in 80% of cases. A Magnetic resonance imaging (MRI) was performed and found a bulky endocavitary mass in hypo-intense in the T1 and T2-weighted sequences.

A diagnostic hysteroscopy with biopsy dissection was performed in 80% of cases that found out carcinomatous or sarcomatous process with a heterologous component in 75% of cases. After the confirmation of the diagnosis, patients went CT to eliminate the presence of metastases. 40% of the patients were classified as stage IB, stage II in 20% of cases, stage IIIC1 and IVB in 20% of cases.

The surgical management consisted on total abdominal hysterectomy, bilateral salpingo-oophorectomy and retroperitoneal lymph node dissection. 40% of the patients were classified as stage IB, stage II in 20% of cases, stage IIIC1 and IVB in 20% of cases.

Adjuvant therapy was offered for all patients. They all went through chemotherapy (cisplatin regimen and taxanes), External beam radiotherapy (EBRT) and received 50Gy in 28 fractions and endocavitary HDR brachytherapy.

After a median follow-up of 18 months, 70% of our women were in remission, 10% in recurrence, and 10% in metastatic event.

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IV. DISCUSSION

Uterine carcinosarcoma accounts for 4.3% of all uterine corpus cancers. The worldwide annual incidence is 0.5–3.3 cases per 100,000 women[5]. This incidence is increasing at approximately 50 years of age and reaches a maximum at the age of 75 years[6]. The median age at the time of diagnosis is 62-67 years[2] which corresponds to the results found in our series.

The most commonly associated etiological factors of carcinosarcoma are previous exposure to radiation. [10] The frequency of carcinosarcoma after radiation exposure increased from a baseline rate as expected. It has been suggested that post-irradiation carcinosarcoma occur at a younger age than those arising de novo. [11] The common risk factors associated with the development of carcinosarcoma are exposure to tamoxifen, exogenous estrogen and obesity.[3].In our series 89% of the patients had a BMI corresponding to a state of obesity.

The common symptoms of uterine carcinosarcomas are vaginal bleeding and pain associated to rapidly growing uterus. Vaginal bleeding is the most frequent symptom.[3] Usually, pelvis examination finds a growth that can be palpated or seen through the cervical os. Almost 15% of patients present an involvement of the cervix identified through cervical biopsy, endocervical curettage, or both [7]

A computed tomography (CT) scan or gadolinium-enhanced magnetic resonance imaging (MRI) are requested for evaluating extention of disease locally. It usually finds an heterogeneous bulky polypoid prolapsing into the endocervical canal and can also find a prolonged intense enhancement .[8]. The behavior of carcinosarcomas is governed by the carcinomatous element. Carcinoma usually metastasizes through the lymphatic channels to nearby lymph nodes, while sarcoma usually metastasizes to peritoneal cavity or to the lungs. In sarcoma, lymph node metastasis is very uncommon. The patients of carcinosarcomas behave much like as high grade endometrial adenosarcoma and commonly metastasize to pelvic or par aortic lymph nodes[9]

The histological examination allows confirming the diagnosis. It finds 2 populations: carcinomatous and sarcomatous cells with invasion of the stroma. Thus, the diagnosis is based on histopathology of the hysterectomy piece. In fact, surgery is considered as primary management for carcinosarcoma. It allows staging and initial treatment[10] Uterine carcinosarcoma staging is as stated on 2017 International Federation of Gynecology and Obstetrics (FIGO)/Tumor, Node, Metastasis (TNM) classification system.

Because this cancer is aggressive compared to other uterine cancers, screening for an early efficient diagnosis and choosing the correct management strategy have an extreme significance. Treatments of this neoplasm usually use surgery, irradiation therapy, and chemotherapy.

Uterine carcinosarcoma usually requires combined modality approach which includes surgery, chemotherapy, radiotherapy and sometimes hormonal therapy. Surgery includes hysterectomy, bilateral salpingoophrectomy, lymph node dissection and resection of all gross disease. The decision of an adjuvant treatment after surgery has to be individualized depending on the staging at diagnosis and condition of the patient. Patients with stage I and II are usually treated by total abdominal hysterectomy, bilateral salpingoophrectomy and omentectomy also performed because of the probability of abdominal dissemination. Patients may need adjuvant radiotherapy and chemotherapy. For patients with advanced stages (III, IV), they can be offered debulking surgery, chemotherapy, and adjuvant radiation.

Adjuvant irradiation is usually associated to a better local control, and is indicated for women with early-stage carcinosarcoma completely resected.[4] A randomized trial demonstrated that adjuvant radiotherapy on the pelvis (total dose of 50.4 Gy) in early stage disease (I or II) improved local control in the subgroup for women with carcinosarcoma.[12]

Patients presenting a carcinosarcoma of the uterus should be closely followed up considering the state of disease, in fact, a high risk of local recurrence (60%) and distant metastasis has been reported; [1] Guidelines for the follow up are identical to those for women treated for endometrial adenocarcinoma. Clinical follow-up should be performed with a physical exam, and vaginal cytology i every 3 months for 2 years, then every 6 months for 5 years[13]

Due to its aggressive behavior, the overall prognosis of uterine carcinosarcoma is poor, even with the best of care, [14]Staging is considered as the most important prognostic factor. Other factors described are patient age, and presence of gross residual disease[15]

V. CONCLUSION

Carcinosarcoma is considered as a rare but particularly aggressive uterine cancer. A multidisciplinary management is useful including complete surgical staging and multimodal therapy combining external beam irradiation or vaginal brachytherapy and systematic chemotherapy in patients with both early and advanced stage disease. However, the rarity of this disease is an obstacle to the implementation of large randomized trials to allow adequate assessment and better management.

REFERENCES

[1]. Cantrell LA, Blank SV, Duska LR. Uterine carcinosarcoma: A review of the literature. Gynecol Oncol. 2015;137(3):581–588.
[2]. A G, S C, A R, Ar G. The management of patients with uterine sarcoma: a debated clinical challenge. Crit Rev Oncol Hematol. 2008;65(2). doi:10.1016/j.critrevonc.2007.06.011.
[3]. Denschlag D, Ulrich UA. Uterine Carcinosarcomas - Diagnosis and Management. Oncol Res Treat. 2018;41(11):675–679.
[4]. Yilmaz U, Alanyali S, Aras AB, Ozsaran Z. Adjuvant radiotherapy for uterine carcinosarcoma: A retrospective assessment of treatment outcomes. J Cancer Res Ther. 2019;15(6):1377–1382.
[5]. Surveillance, Epidemiology, and End Results analysis of 2677 cases of uterine sarcoma 1989–1999 - ScienceDirect. https://www.sciencedirect.com/science/article/abs/pii/S0090825803009405. Accessed 23 May 2021.
[6]. Robboy's Pathology of the Female Reproductive Tract - Stanley J. Robboy, Rex C Bentley, Peter Russell, Malcolm C. Anderson, George L. Mutter, Jaime Prat, Churchill Livingstone. https://medbook.com.pl/ksiazka/pokaz/id/35039/tytul/robboys-pathology-of-the-female-reproductive-tract-robboy-mutter-prat-bentley-russell-anderson-churchill-livingstone. Accessed 23 May 2021.
[7]. Callister M, Ramondetta LM, Jhingran A, Burke TW, Eifel PJ. Malignant mixed Müllerian tumors of the uterus: analysis of patterns of failure, prognostic factors, and treatment outcome. Int J Radiat Oncol Biol Phys. 2004;58(3):786–796.
[8]. Teo SY, Babagbemi KT, Peters HE, Mortele KJ. Primary malignant mixed mullerian tumor of the uterus: findings on sonography, CT, and gadolinium-enhanced MRI. AJR Am J Roentgenol. 2008;191(1):278–283.
[9]. Uterine Carcinosarcomas (Malignant Mixed Müllerian Tumours): A Review with Special Emphasis on the Controversies in Management. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3189599/. Accessed 23 May 2021.
[10]. Denschlag D, Thiel FC, Ackermann S, Harter P, Juhasz-Boess I, Mallmann P, et al. Sarcoma of the Uterus. Guideline of the DGGG (S2k-Level, AWMF Registry No. 015/074, August 2015). Geburtshilfe Frauenheilkd. 2015;75(10):1028–1042.
[11]. Kord A, Rabiee B, Elbaz Younes I, Xie KL. Uterine Carcinosarcoma: A Case Report and Literature Review. Case Rep Obstet Gynecol. 2020;2020:1–8.
[12]. B O, D B, G S, Tl W, Dk G. Chemoradiation Versus Chemotherapy in Uterine Carcinosarcoma: Patterns of Care and Impact on Overall Survival. Am J Clin Oncol. 2018;41(8). doi:10.1097/COC.0000000000000360.
[13]. 13.(2) Uterine carcinosarcoma: a primer for radiologists. https://www.researchgate.net/publication/332715648_Uterine_carcinosarcoma_a_primer_for_radiologists. Accessed 24 May 2021.
[14]. Harano K, Hirakawa A, Yunokawa M, Nakamura T, Satoh T, Nishikawa T, et al. Prognostic factors in patients with uterine carcinosarcoma: a multi-institutional retrospective study from the Japanese Gynecologic Oncology Group. Int J Clin Oncol. 2016;21(1):168–176.
[15]. P I, J C, S V, P B, P R, C D. Analysis of clinicopathologic factors in malignant mixed Müllerian tumors of the uterine corpus. Int J Gynecol Cancer Off J Int Gynecol Cancer Soc. 2002;12(4). doi:10.1046/j.1525-1438.2002.01117.x.