WORLD JOURNAL OF PHARMACEUTICAL RESEARCH
SJIF Impact Factor 8.084
Volume 11, Issue 1, 1361-1368. Case Report ISSN 2277– 7105

UTERINE CARCINOSARCOMA – TWO RARE CASE REPORTS

Vanishree M.[1], Sunderesh Kamal Chander[2]*, Dr. Sonti Sulochana[3]

[1]Postgraduate, [2]Postgraduate, [3]Professor

Department of Pathology, Saveetha Medical College and Hospital, Saveetha Nagar, Thandalam, Chennai 602105, Tamil Nadu, India.

Article Received on
12 Nov. 2021,

Revised on 02 Dec. 2021,
Accepted on 22 Dec. 2021

DOI: 10.20959/wjpr20221-22688

***Corresponding Author**
Dr. Sunderesh Kamal Chander
Postgraduate, Department of Pathology, Saveetha Medical College and Hospital, Saveetha Nagar, Thandalam, Chennai 602105, Tamil Nadu, India.

ABSTRACT

Uterine carcinosarcoma (CS), also known as mixed Mullerian tumour (mMT), is a rare and very aggressive neoplasm that accounts for 16.4% of all uterine cancer deaths. It accounts for fewer than 5% of uterine corpus cancers and has an annual incidence of 1.7 per 100,000 women. CS is a biphasic tumor that is histologically characterized by carcinomatous and sarcomatous components. The prognosis is poor with early, widespread metastasis and a 5-year survival of only 17% despite radical surgery and radiotherapy. Management is complete *surgical staging* to assess tumor dissemination followed by *systematic chemotherapy*.

KEYWORDS: *Uterine carcinosarcoma, epithelial and mesenchymal component.*

INTRODUCTION

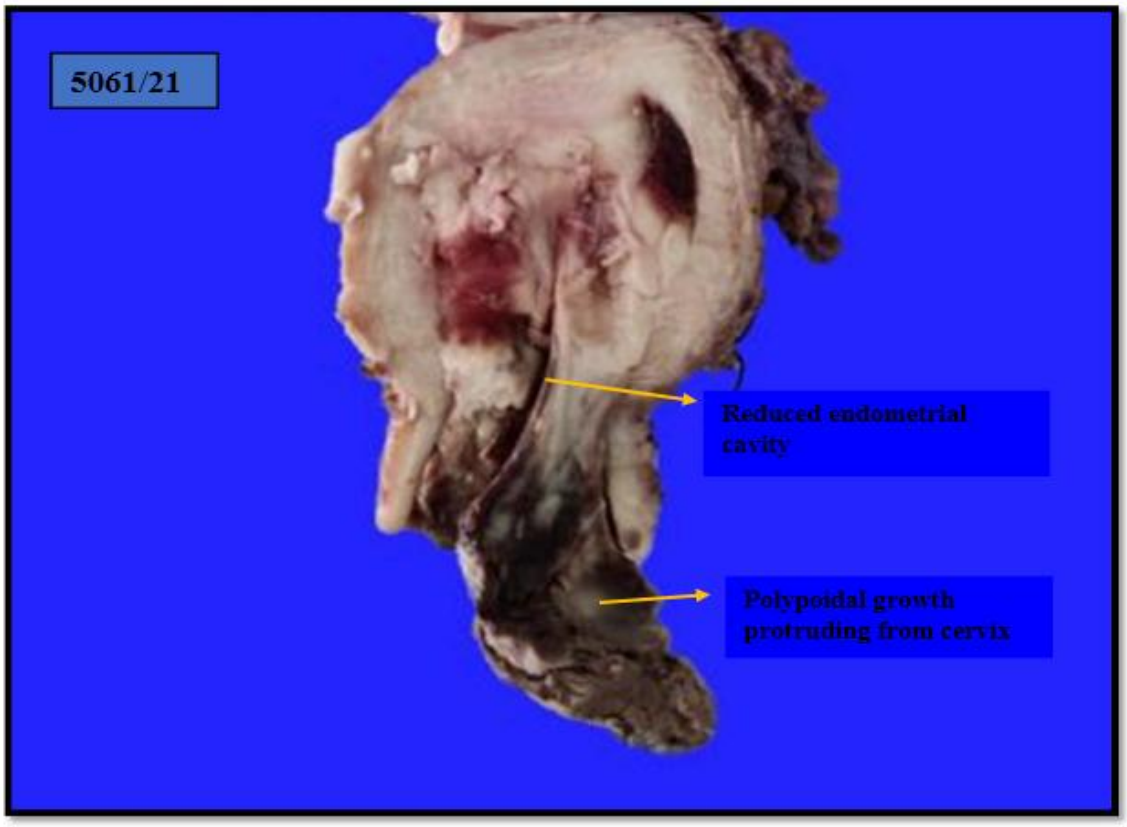
UCS is an aggressive de-differentiated endometrial carcinoma with its own molecular profile. It is Malignant biphasic tumour with a mixture of malignant epithelial and mesenchymal elements. It is also called as malignant mixed mesodermal or Müllerian tumour; metaplastic carcinoma.[1] 1, 2, and 5-year survival for Carcinosarcoma patients were 47%, 38%, and 14% respectively. They are classified under the mixed epithelial and mesenchymal tumors of the uterus in the World Health Organization classification of 2014. The carcinosarcoma arise mostly in the uterus and the majority of patients are presented with postmenopausal vaginal bleeding, and in some patient it is associated with a protuberant fleshy mass from the cervix.[6] Most common in post-menopausal women of age 48–75 years and usually present

with ulcerated vaginal polypoid mass about 3–15 cm in diameter and vaginal bleeding or discharge,[3,4] Cut section reveals soft, fleshy tissue which may be partly necrotic.

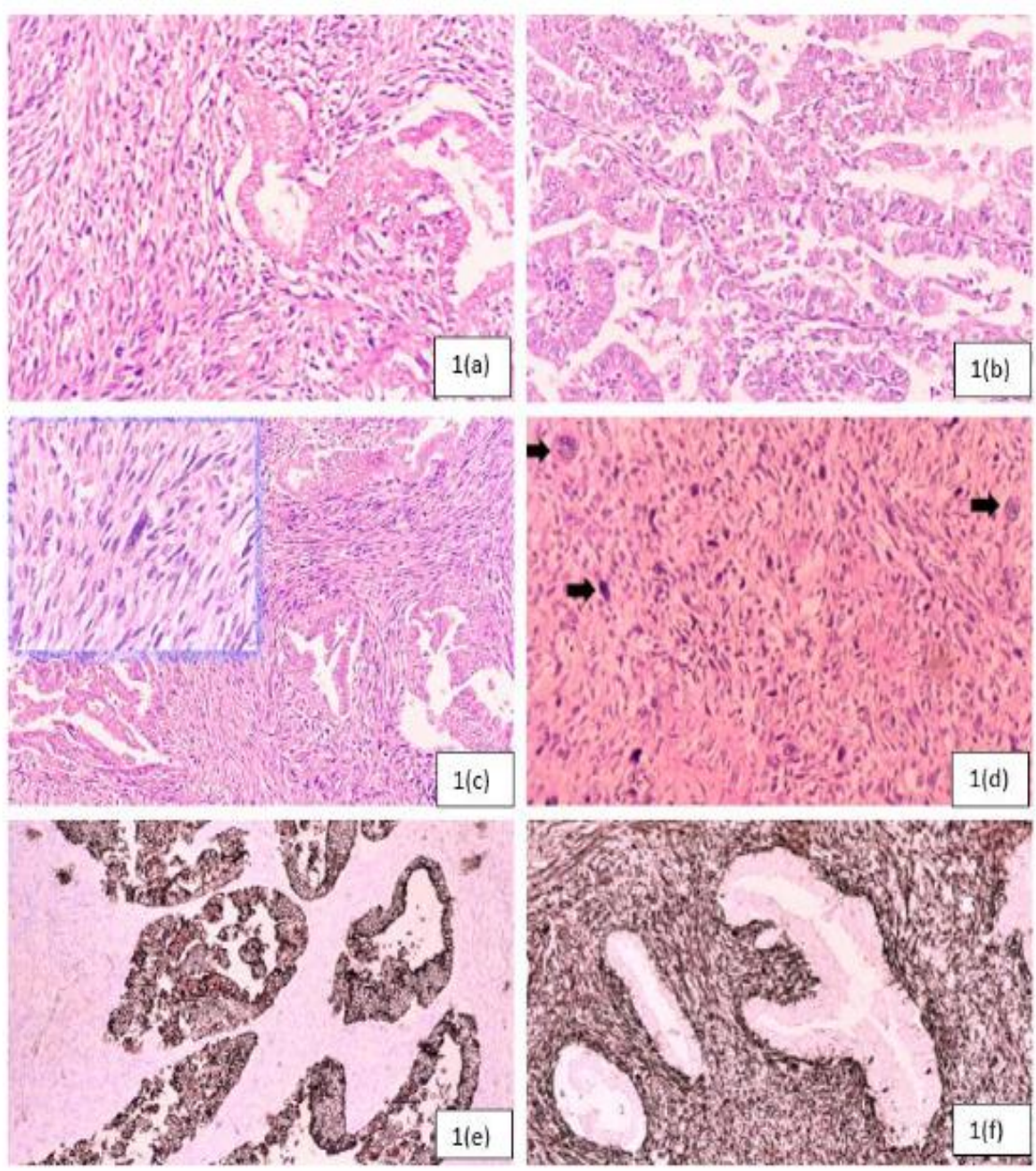
Case report

Case 1

A 67 year old female presented with chief complaint of pain and mass per vaginum associated with bleeding for 1 month.On MRI pelvis-revealed 11.2×6×7.8cm lesion in endometrial cavity of uterus extending into endocervical lumen, also linear lesion probably polyp was noted. Staging laparotomy was done uterus with cervix and pelvic nodes were sent for histopathological examination. On microscopy showed epthelial and mesenchymal component,with pathological grade-**pT1apN1a** an **FIGO** stage **1A**.

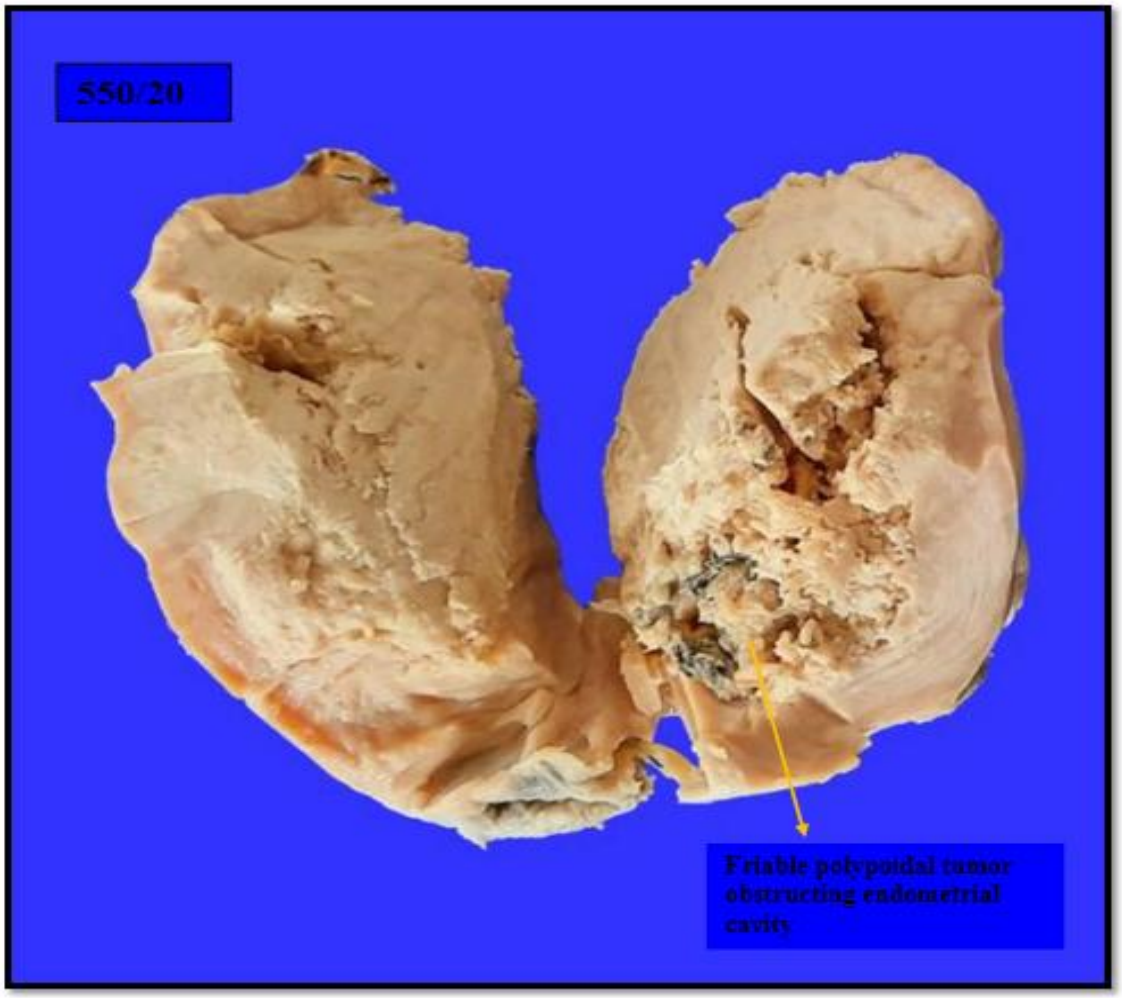


1(a): On high power showing both epithelial component (glands) and mesenchymal (spindle cells) component lined by atypical cells. 1(b): Epithelial component- endometrial glands lined by hyperchromatic, pleomorphic cells. 1(c): Sarcomatous component- atypical spindle shaped cells in stroma with (inset) pleomorphic hyperchromatic nuclei. 1(d): On high power shows multinucleated giant cells (black arrow) and bizarre cells in stroma. 1(e): Vimentin stain showing positive for mesenchymal 1(f): PanCK staining malignant epithelial cells.

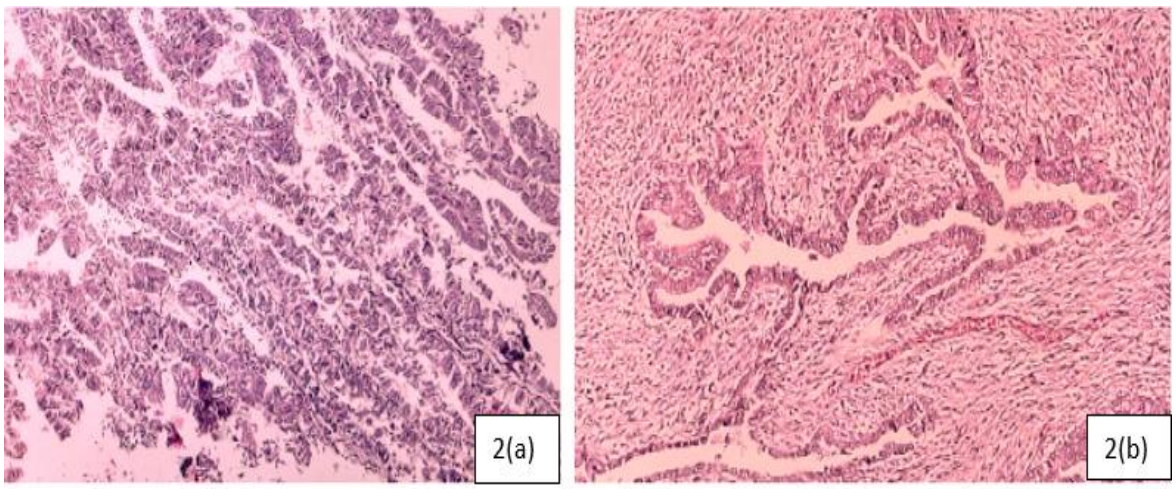


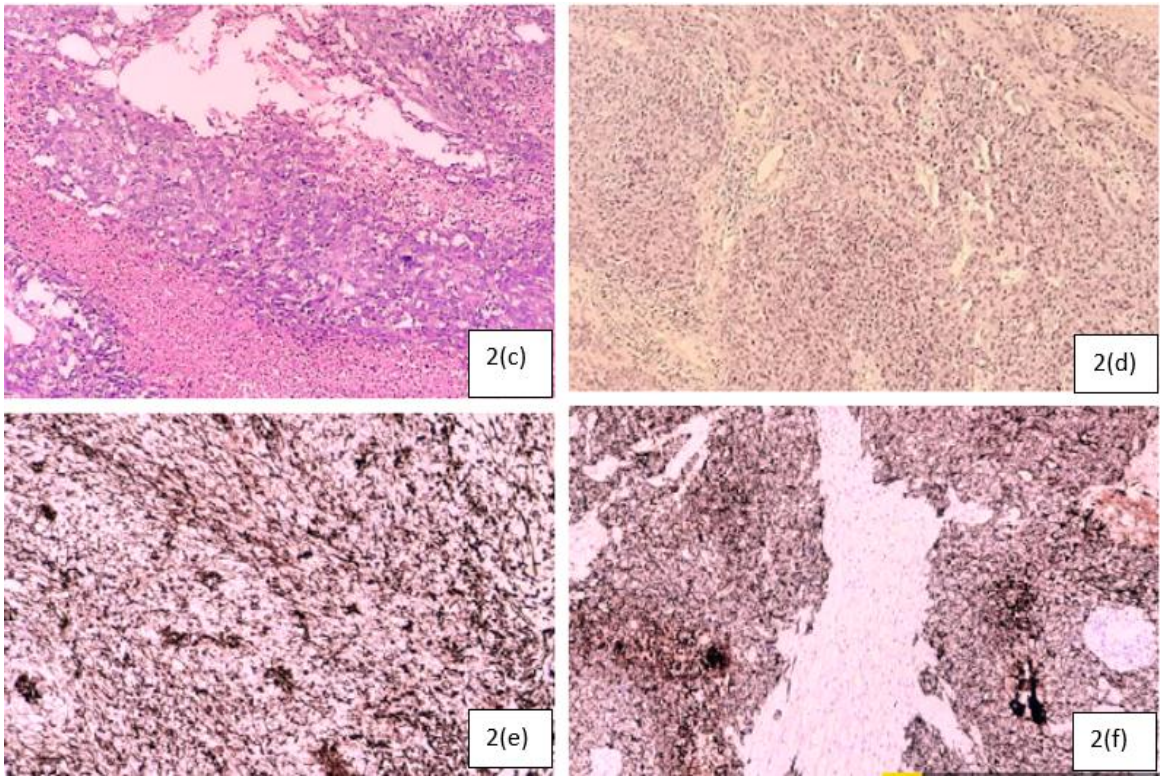
Case 2

A 66 year old female presented with chief complaint of pain and mass per vaginum associated with bleeding for 2 month.On USG pelvis-revealed 9×8×7cm lesion in endometrial cavity of uterus extending into endocervical lumen.Total hysterectomy with bilateral salpingo-opherectomy was done uterus with cervix with bilateral tubes and ovaries pelvic nodes were sent for Histopathological examination.On gross examination,cut surface revealed multiple polypoidal friable lesion protruding into endometrial cavity. Microscopy showed epithelial and mesenchymal component,with pathological grade-**pT3b pN0** and **FIGO** stage **IIIB.**



2(a): Section shows epithelial component shows irregular glands lined by hyperchromatic pleomorphic nuclei. 2(b): Shows epithelial and stromal component with atypical spindle cells 2(c): Shows occasional glands with areas of necrosis. 2(d): Shows syncytial sheets 2(e): Vimentin positive for stromal cells 2(f): PanCK positive for epithelial cells.





DISCUSSION

On gross examination, endometrial carcinosarcomas present as a sessile or polypoid, bulky, often hemorrhagic mass that usually fills the endometrial cavity or protrudes through the cervical os and fills the vaginal vault.[5] In certain cases, the tumour penetrates deeply into the uterine myometrium, causing the walls to expand. It may happen less frequently. On microscopic examination, both epithelial and mesenchymal components are present in carcinosarcoma.[9] Adenocarcinomas of the endometriod type are the most common malignant epithelial components, but serous, mucinous, clear cell, squamous cell, and differentiated carcinomas are also common. Mesenchymal elements are usually of high grade and can be homologous or heterologous in nature.[10] It resembles endometrial stromal sarcoma or fibro sarcoma in homologous cancers. Alternatively, mesenchymal differentiation can be detected in areas of endometrial, stromal, or undifferentiated sarcomas in heterologous tumours.[8] Rhabdomyosarcoma, chondrosarcoma, osteosarcoma, and liposarcoma are the most prevalent heterologous sarcomas, in decreasing order.[8,9]

Depending on the features of the stroma or mesenchymal component of the endometrial tissue, uterine carcinosarcomas can be categorised into homologous and heterologous subtypes. Earlier research has indicated that this has prognostic significance, but more current research has revealed that histological aspects of the stromal component have little predictive

effect.[12,13] Uterine carcinoma has a poor prognosis despite different treatment modalities used. It is usually worse than the corresponding set of high grade endometrial carcinoma. For women with carcinosarcoma, their prognosis vary inversely with the initial stage at presentation, which include tumor size, lymph node metastasis, adnexal spread, lymphovascular invasion, histological grade, cell type and depth of myometrial invasion.[13] Other factors also influence the prognosis of carcinosarcoma patients, like types of surgery, chemotherapy doses and regimens, adjuvant radiotherapy and patients' characteristics.[15,16]

CONCLUSION

We have presented a rare case of uterine carcinosarcoma tumors. Since Carcinosarcoma is a rare endometrial carcinoma, it must be diagnosed early by MRI pelvis and adequate surveillance and follow up must be done.Surveillance and follow up-physical examination and vaginal cytology every 3 months for 2 years, then every 6 months for a total of 5 years based on the NCCN GuidelinesManagement Approach should be complete surgical staging to assess tumor dissemination followed by vaginal brachytherapy and systematic chemotherapy in patients with both early and advanced stage disease.

Conflict of interest

There is no conflict of interest.

Financial Support and Sponsorship

Nil

Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form the patient(s) has/have given his/her/their consent for his/her/their images and other clinical information to be reported in the journal. The patients understand that their names and initials will not be published.

REFERENCE

1. Nama N, Cason FD, Misra S, Hai S, Tucci V, Haq F, Love J, Ullah A, Peterson P, Grishko FF, Akbar W. Carcinosarcoma of the Uterus: A Study From the Surveillance Epidemiology and End Result (SEER) Database. Cureus, 2020; 12(9).

2. Leskela S, Pérez-Mies B, Rosa-Rosa JM, Cristobal E, Biscuola M, Palacios-Berraquero ML, Ong S, Matias-Guiu Guia X, Palacios J. Molecular basis of tumor heterogeneity in endometrial carcinosarcoma. Cancers, 2019; 11(7): 964.
3. El-Nashar SA, Mariani A. Uterine carcinosarcoma. Clinical obstetrics and gynecology, 2011; 1, 54(2): 292-304.
4. Amant F, Cadron I, Fuso L, Berteloot P, de Jonge E, Jacomen G, Van Robaeys J, Neven P, Moerman P, Vergote I. Endometrial carcinosarcomas have a different prognosis and pattern of spread compared to high-risk epithelial endometrial cancer. Gynecologic oncology, 2005; 1, 98(2): 274-80.
5. Cantrell LA, Blank SV, Duska LR. Uterine carcinosarcoma: a review of the literature. Gynecologic oncology, 2015; 1, 137(3): 581-8.
6. Ferguson SE, Tornos C, Hummer A, Barakat RR, Soslow RA. Prognostic features of surgical stage I uterine carcinosarcoma. The American journal of surgical pathology, 2007; 1, 31(11): 1653-61.
7. Singh R. Review literature on uterine carcinosarcoma. Journal of cancer research and therapeutics, 2014; 1, 10(3): 461.
8. Gokce ZK, Turan T, Karalok A, Tasci T, Ureyen I, Ozkaya E, Kose MF, Tulunay G. Clinical outcomes of uterine carcinosarcoma: results of 94 patients. International Journal of Gynecologic Cancer, 2015; 1: 25(2).
9. Galaal K, Kew FM, Tam KF, Lopes A, Meirovitz M, Naik R, Godfrey KA, Hatem MH, Edmondson RJ. Evaluation of prognostic factors and treatment outcomes in uterine carcinosarcoma. European Journal of Obstetrics & Gynecology and Reproductive Biology, 2009; 1, 143(2): 88-92.
10. Nemani D, Mitra N, Guo M, Lin L. Assessing the effects of lymphadenectomy and radiation therapy in patients with uterine carcinosarcoma: a SEER analysis. Gynecologic oncology, 2008; 1, 111(1): 82-8.
11. Wu TI, Yen TC, Lai CH. Clinical presentation and diagnosis of uterine sarcoma, including imaging. Best Practice & Research Clinical Obstetrics & Gynaecology, 2011; 1, 25(6): 681-9.
12. Peters 3rd WA, Kumar NB, Fleming WP, Morley GW. Prognostic features of sarcomas and mixed tumors of the endometrium. Obstetrics and gynecology, 1984; 1, 63(4): 550-6.
13. Iwasa Y, Haga H, Konishi I, Kobashi Y, Higuchi K, Katsuyama E, Minamiguchi S, Yamabe H. Prognostic factors in uterine carcinosarcoma: a clinicopathologic study of 25

patients. Cancer: Interdisciplinary International Journal of the American Cancer Society, 1998; 1, 82(3): 512-9.

14. Fukunaga M, Nomura K, Endo Y, Ushigome S, Aizawa S. Carcinosarcoma of the uterus with extensive neuroectodermal differentiation. Histopathology, 1996; 29(6): 565-70.
15. Tanaka YO, Tsunoda H, Minami R, Yoshikawa H, Minami M. Carcinosarcoma of the uterus: MR findings. Journal of Magnetic Resonance Imaging: An Official Journal of the International Society for Magnetic Resonance in Medicine, 2008; 28(2): 434-9.
16. Singh R. Review literature on uterine carcinosarcoma. Journal of cancer research and therapeutics, 2014; 1, 10(3): 461.