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Pathology

MALIGNANT MIXED MULLERIAN TUMOUR OF THE CERVIX: A RARE CASE REPORT

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ABSTRACT Malignant Mullerian mixed tumors also known as Carcinosarcomas or Metaplastic Carcinoma or Malignant mesodermal mixed tumor of the uterine cervix are extremely rare, accounting for 0.005% of all cervical malignancies. Most cases are seen in adult women over 48-50 years (post-menopausal); although, a wider age range may be presented. A 40 year old woman admitted to UISEM hospital (obs & gynae deptt.) with complaints of abdominal pain of 7 months duration. USG findings are cervical fibroid with degeneration. A large solitary mass measuring 5 x 4 x 3 cm, in cervical region with areas of hemorrhage and necrosis is seen. On microscopic examination of H&E sections large number of atypical pleomorphic cells forming various glandular, solid and papillary structures are seen. A sarcomatous component composed of polygonal and spindle-shaped cells also recognized however no heterologus component is seen.

KEYWORDS : Carcinosarcoma cervix, Malignant Mullerian mixed tumors, Metaplastic Carcinoma cervix.

INTRODUCTION

Malignant Mullerian mixed tumors also known as Carcinosarcomas or Metaplastic Carcinoma or Malignant mesodermal mixed tumor of the uterine cervix are extremely rare, accounting for 0.005% of all cervical malignancies [1] and are known to behave aggressively. To date, only approximately 50 well documented cases have been reported [1, 2, 3]. Because of their rarity, no consensus has been reached regarding treatment, prognosis, and outcome [2,3].

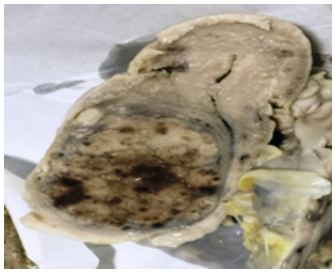
Carcinosarcoma of Uterine Cervix is a rare form of cervical cancer. Most cases are seen in adult women over 48-50 years (post-menopause); although, a wider age range may be presented. Carcinosarcomas, arising in the cervix, is much rarer compared to other locations within the female reproductive system, such as the ovary or uterus [4].

First described in1951by Ferreira and colleagues MMMT´s include both malignant epithelial and mesenchymal components. The most common components are squamocellular carcinoma combined with homologous sarcoma. [5]

CASE REPORT

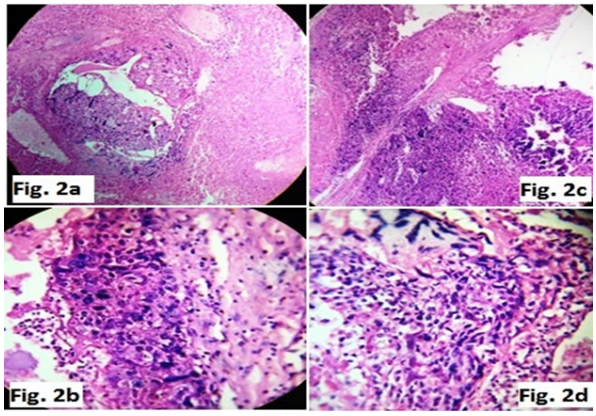
A 40 year old woman admitted to UISEM hospital (obs & gynae deptt.) with complaints of abdominal pain of 7 months duration. Additionally, her complaints were spotting, vaginal bleeding, chronic constipation and headache. USG findings were suggestive of cervical fibroid with degeneration. Preoperatively limited investigations were done and patient was posted for surgery. Total abdominal hysterectomy with bilateral salpingoopherectomy was done and specimen was sent to our department for histopathological examination.Specimen was fixed overnight in 10% formalin and histopathological processing was started.

GROSS FEATURES: uterus with cervix measuring 12 x 10 x 5 centimeters (cm). Cut surface shows a large solitary mass measuring 5 x 4 x 3 cm, in cervical region with areas of hemorrhage and necrosis. (Fig: 1)



Figurer 1

On microscopic examination of H&E sections large number of atypical pleomorphic cells forming various glandular, solid and papillary structures are seen (Figure2a). These atypical cells have increased nucleocytoplasmic ratio, irregular hyper chromatic nucleus and moderate to abundant eosinophilic cytoplasm. Few cells are showing clear cytoplasm (Figure2b). Numerous mitotic figures along with large area of necrosis are seen (Figure2c). A sarcomatous component composed of polygonal and spindle-shaped cells also recognized (Figure2d) however no heterologus component is seen.



DISCUSSION

Primary cervical mixed epithelial and mesenchymal tumors include mullerian adenosarcomas and malignant mullerian mixed tumors (MMMT) of the cervix. Cervical MMMT are less common than their much more common uterine counterparts. Malignant uterine neoplasms containing both carcinomatous and sarcomatous elements are designated in the World Health Organization (WHO) classification of uterine neoplasm's as carcinosarcomas. Gebhardt in 1899 appears to have reported the first case, Meyer, after a personal examination of the slides, accepted it as authentic.[6]Both usually occur in postmenopausal women and both typically form polypoid or pedunculated masses. The mean age of patients was 65 years However, cervical MMMTs differ in their histological appearance from MMMTs arising in the uterus. The carcinomatous component in cervical MMMT is in the form of cervical carcinoma type rather than endometrial carcinoma as seen in uterine MMMT. Microscopically, UC is composed of both epithelial and mesenchymal elements which may be intermittently mixed or be seen as two distinct components. The mesenchymal elements may be (a) homologous, containing cells native to the uterus including Stromal sarcoma, fibrosarcoma or leiomyosarcoma (2%) or (b) heterologous, with mixed components including rhabdomyosarcoma (18%),

chondrosarcoma (10%), osteosarcoma (5%) or liposarcoma [6]. The most common carcinomatous pattern in cervical tumors is a basaloid pattern that consists of anastomosing densely cellular trabeculae composed of small cells with scant cytoplasm and peripheral palisading. Other epithelial patterns include typical squamous cell carcinoma and endometrioid adenocarcinoma. [7]

Adenoid basal and adenoid cystic components have also been reported in several cases .The sarcomatous element is typically homologous and frequently has the appearance of a fibrosarcoma or endometrial stromal sarcoma. The sarcomatous element is frequently high grade and may have myxoid change. [7]

Extension of uterine MMMT to the cervix is in the differential diagnosis of cervical MMMT. The correct diagnosis is based on the dominant location of the tumor, the appearance of the carcinomatous component and detection of HPV. Unlike the usual endocervical-type adenocarcinoma, it is known that mesonephric adenocarcinoma is not related to human papillomavirus (HPV) infection [8].

The prognosis in cervical MMMTs depends on the clinical Stage of the disease and is better than that in the uterine Counterpart because of their early detection in many cases [9].Clinical, histopathological, immunohistochemical, ultra structural, tissue culture, and molecular data confirm that the carcinomatous element is the "driving force" and that the sarcomatous component is derived from the carcinoma or from a stem cell that undergoes divergent differentiation. Thus, uterine carcinosarcomas should be regarded as metaplastic carcinomas and adjuvant treatment should probably be similar to that directed against aggressive high grade endometrial carcinomas, rather than being sarcoma based.[10]

CONCLUSION

Keeping in mind the site and morphology of the tumor and on basis of histopathological examination we diagnosed this case carcinosarcoma cervix which is a rare entity.

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