

CASE REPORT**A RARE CASE OF ABERRANT MIGRATION OF PRIMORDIAL GERM CELLS – YOLK SAC TUMOR OF UTERUS**Tandon Rakesh¹, Chugh Ashima², Patel Harsh², Aggarwal Deepti²¹Professor & HOD, ²Resident, Department of Pathology, SBKS MI & RC, Vadodara**Correspondence:**

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ABSTRACT

Yolk sac tumor of uterus is a very rare tumor seen in young women. It is thought that these tumors arise in the uterus as a result of aberrant migration of primordial germ cells. We present a case of 12 year old female with complaints of lump & pain in abdomen. CT report suggested germ cell tumor of ovary. Cytology report suggested teratoma. The mass was excised & sent to our pathology department for histopathological examination. The mass was 14X14X8 cm. On C/S a cyst was seen arising from the posterior wall of uterus measuring 10X7X3 cm. On gross examination ovary appeared normal. We reported Yolk sac tumor of uterus with heterologous differentiated mesenchymal components – (T_{3a}N_xM_x) Stage IIIA. The section from the ovary did not show any remarkable pathology. Alfa fetoprotein was also raised in this patient.

Key words – Teratoma, Yolk sac tumor , Alfa fetoprotein**INTRODUCTION**

Yolk sac tumor is a rare and highly malignant germ cell tumor. It accounts for about 10% of malignant germ cell tumors. Most yolk sac tumors of the female genital tract occur in the ovaries. Rare cases have been reported in the vulva⁴, the cervix and the endometrium⁵. Yolk sac tumors arising in the pelvis outside of the ovary, like our case, are distinctly uncommon. Yolk sac tumor of uterus is a very rare tumor seen in young women. It is thought that these tumors arise in the uterus as a result of aberrant migration of primordial germ cells¹

CASE REPORT

We present a case of 12 year old female with complaints of abdominal pain, abdominal enlargement and abdominal mass. The female came to gynaec OPD. Radiological investigations were done. They suspected teratoma or germ cell tumour of ovary. Then the surgeon aspirated the ascitic fluid & it was sent for cytological examination. Teratoma was suspected in cytology. Then alpha fetoprotein was also done which was raised. Surgeons decided to excise the mass. On the operation table, a huge mass was seen originating from the posterior wall of uterus. Both ovaries appeared normal. The mass was sent for histopathological diagnosis.

GROSS EXAMINATION

Received cystic globular soft tissue mass weighing 300 gms, measuring 14x14x8 cm. External surface was nodular, variegated. On cut section brownish hemorrhagic fluid mixed with necrotic material came out. There were heterogeneous areas comprising of solid, cystic, cartilaginous, bony areas with presence of hair. There was a large cyst measuring 10x7x3 cm. The mass was arising from the uterine posterior wall. Uterus with cervix measuring 5x4x3 cm with extensive necrosis and hemorrhage. Also attached to mass was ovary with fallopian tube. Ovary was measuring 3x2x1 cm, fallopian tube was measuring 3 cm long. On cut section both appeared normal. Also received separate soft tissue bits with clots and necrotic material aggregating 18x18x3 cm.

MICROSCOPIC EXAMINATION:

All the sections showed histomorphology of Yolk sac Tumour showing tumour cells arranged in reticular pattern with clear, amphophilic cytoplasm and atypical hyperchromatic nuclei. Characteristic schiller Duval Bodies was seen. There was abundant extra cellular hyaline deposition in the stroma with presence of heterologous differentiated mesenchymal components such as cartilage and bone. There was also presence of cuboidal/columnar lined cystically dilated glands with extensive areas of necrosis and haemorrhage in the background - Overall features were that of Yolk sac

Tumour of uterus. The sections from uterus showed uterine smooth musculature with presence of yolk sac tumour. The sections from cervix showed presence of yolk sac tumour. The sections from ovary and fallopian tube didn't show any remarkable pathology.

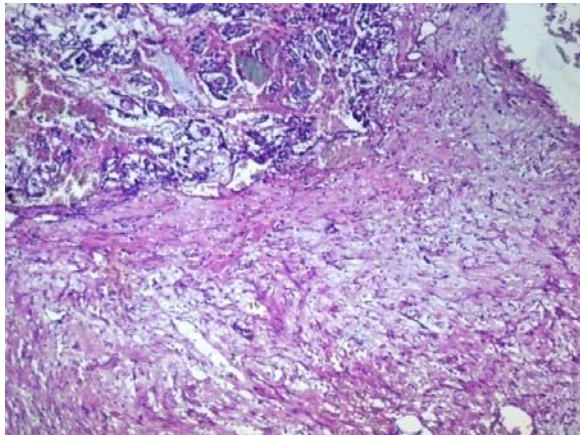


Fig 1:The section shows part of yolk sac tumor originating from the myometrium(4X, H &E)

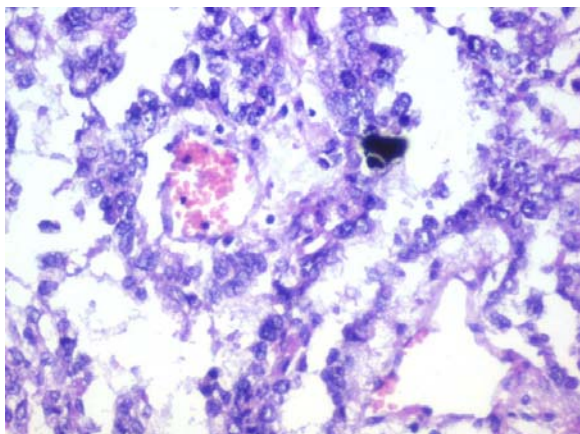


Fig 2:The section shows rounded or festooning pseudopapillary processes with central vessels (schiller duval bodies). Few cells showing hyaline droplets. (20X, H&E)

DIAGNOSIS

Yolk Sac Tumour of Uterus – T_{3a}N_xM_x -Stage IIIA

T_{3a}- Tumour invading serosa

N_x - Lymph node can not be assessed

M_x-Distant Metastasis can not be assessed

DISCUSSION

Endodermal sinus tumour is so called because of its histological similarity to the extra-embryonal structures

of the early embryo. The occurrence of this tumour at an extragonadal site is extremely rare. Ungerleider et al² cited from literature 17 cases of this tumour at extragonadal site 10 cases in the vagina, 2 cases in the pelvis, one each in the broad ligament, retroperitoneum, maxillary sinus, cervix, brain and at the same time reported the first case in the region of the vulva. Our case is very rare. Till now to the best of our knowledge rarely any yolk sac tumor with mesenchymal differentiation has been reported in uterus.

The mesenchyme like components of these tumors have pleuripotent properties; it usually presents in the form of spindle cells in a well vascularized myxoid background.³ The most common differential diagnosis suspected on cytology is teratoma. The yolk sac tumor with pleuripotent mesenchymal components raise the suspicion of teratoma. But increase alfa-fetoprotein differentiates between the two.

CT scan suggested germ cell tumor of the ovary. The surgeons also suspected the same. The surgical treatment for yolk sac tumor in young women is unilateral salpingo-oophorectomy with limited debulking of extraovarian tumor. Bilateral tumors are rare, and it is not necessary to biopsy a grossly normal contralateral ovary⁶. If they appear uninvolved, the contralateral ovary and uterus need not be removed even in patients with advanced disease. While doing salpingo-oophorectomy surgeons noticed that the mass was originating from posterior wall of uterus. Both the ovaries appeared normal.

Exploration of the remainder of the abdomen revealed smooth and unremarkable abdominal peritoneum, liver surfaces and diaphragms and normal appearing pelvic and para-aortic lymph nodes.

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