

## Case Report

# AN UNUSUAL CASE-LEIOMYOSARCOMA OF CERVIX

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## ABSTRACT

Sarcomas of the uterine cervix are uncommon tumours constituting less than 1% of all cervical malignancies. Leiomyosarcoma of uterine cervix is rare and aggressive tumour. Only few cases were reported in literature. We report a rare case of leiomyosarcoma of uterine cervix in a 52 year female patient presented with post menopausal bleeding since 6 months. Final diagnosis was done on the basis of histopathological and immunohistochemical findings.

**Keywords:** *Leiomyosarcoma, Cervix, Immunohistochemistry*

## INTRODUCTION

Cervical sarcomas are rare tumours that constitute less than 1% of all cervical malignancies (Khosla *et al.*, 2013). Leiomyosarcoma most commonly occurs in perimenopausal and postmenopausal women in their fourth to sixth decades of life (Fadare *et al.*, 2006). Usually, most patients present with vaginal bleeding and a bulky cervical mass at the time of diagnosis (Dhull *et al.*, 2013). We describe a rare case of leiomyosarcoma of the cervix in 52 year old female patient.

## CASES

52 year old female patient presented with post menopausal bleeding since 6 months. Active per vaginal bleeding was present. Per vaginal examination revealed 6-8 cm well defined mass arising from cervix which bleeds on touch, cervix was dilated. Complete hemogram and routine blood biochemistry of the patient were within normal limits. Chest radiography was normal. Abdominopelvic ultrasonography revealed a well defined 8.6 x 8.9 cm hypoechoic lesion in the cervix.

Radical hysterectomy with bilateral salpingo oophorectomy with bilateral pelvic lymph node dissection was done. Grossly, the specimen comprised of uterus, cervix along with bilateral adnexa, left and right parametria. The organ measured 10.7x4.5x3.2cm. It showed a large well circumscribed cervical mass that measured 7.4x6.5x6.0cm. Cut surface was fleshy solid, tan white in appearance along with large areas of cystic degeneration containing fragile tissue with necrosis.

Histological diagnosis was done on paraffin embedded formalin fixed section stained with hematoxylin and eosin.

Microscopic examination showed a tumour composed of interlacing fascicles of highly pleomorphic spindle shaped cells having oval to spindle plump, pleomorphic, hyperchromatic, vesicular nuclei, prominent nucleoli and eosinophilic to vacuolated cytoplasm. Also, seen were many tumour giant cells, atypical mitotic figures, hyalinized stroma, coagulative necrosis & haemorrhage. Mitotic count was 8-10/10 high power field.

On immunohistochemistry, tumour cells showed positivity for Cytokeratin(very focal), Epithelial membrane antigen (very focal), Smooth muscle actin (focal), Muscle specific actin (focal), Desmin (very focal) and immunonegativity for caldesmon. The lesion was diagnosed as high grade leiomyosarcoma of cervix.

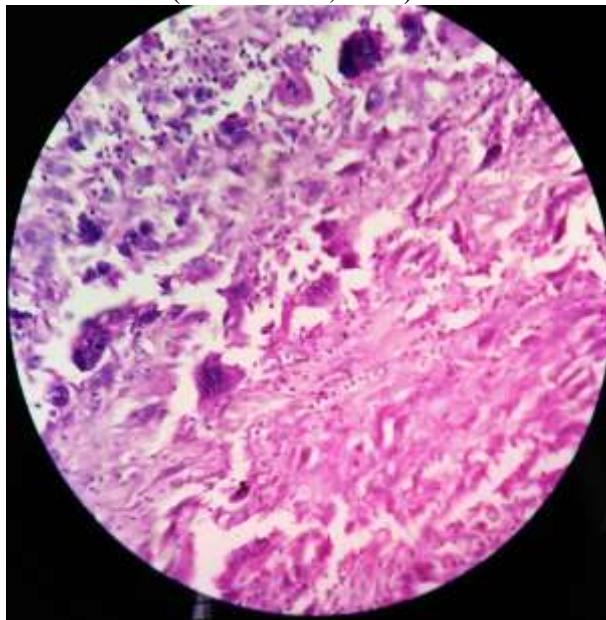
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### DISCUSSION

Cervical leiomyosarcomas are extremely rare tumours occurring in the perimenopausal period. The most common presenting symptom is abnormal vaginal bleeding (Irwin *et al.*, 2003). Primary therapy for localized disease entails complete surgical resection in the form of total abdominal hysterectomy with bilateral salpingo-oophorectomy. The role of lymphadenectomy in the management of leiomyosarcomas remains debatable due to low incidence of lymph nodal involvement (Khosla *et al.*, 2012).



**Figure 1: Gross Image Showing Cut Section of Uterus and Cervix with a Fleshy, Tan White Tumour in the Cervix with Large Areas of Cystic Degeneration Containing Fragile Tissue and Necrosis**



**Figure 2: 40X, H&E Showing Malignant Cells Having Nuclear Atypia, Tumour Giant Cells and Atypical Mitotic Figures**

Tumours with favourable and unfavourable outcome are defined. Large tumour size, higher grade and stage, older age, high proliferation index and post menopausal status are considered to have unfavourable outcome (Dhull *et al.*, 2013; Bhatia *et al.*, 2015; Mehra *et al.*, 2015). In our case there were cellular pleomorphism, atypical mitosis and necrosis, older age group and postmenopausal status suggestive of high grade malignancy.

In Gotoh *et al.*, (2001) reported epithelioid leiomyosarcoma of the cervix in a 72-year-old woman. The patient underwent total abdominal hysterectomy and bilateral salpingo-oophorectomy.

In Irvin *et al.*, (2003) reported leiomyosarcoma of the cervix in a 47-year-old woman, who was treated with modified radical hysterectomy and bilateral salpingo-oophorectomy.

In Sahu *et al.*, (2008) reported leiomyosarcoma of the cervix in a 25-year-old woman, who underwent neoadjuvant chemotherapy and then total abdominal hysterectomy and bilateral salpingo-oophorectomy followed by radiotherapy.

Grover *et al.*, (2009), reported leiomyosarcoma of the cervix in 38 years old lady with recurrent retention of urine for 4 months.

In Dhull *et al.*, (2013) reported leiomyosarcoma of the cervix in a 34-year-old woman, who had undergone simple hysterectomy but later histopathology revealed leiomyosarcoma of the cervix hence bilateral salpingo-oophorectomy was not done.

In Mehra *et al.*, (2015) reported leiomyosarcoma of the cervix in a 38 year old multiparous lady who presented with four month history of progressively increasing pain in lower abdomen and increased

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frequency of micturition was treated with standard surgery and radiotherapy with chemotherapy four weeks post total abdominal hysterectomy with bilateral salpingo-oophorectomy.

In Bhalekar *et al.*, (2016) reported a 34 year old married lady (gravida 2, para 2) presented with bleeding per vaginum and pain in abdomen since 2 months. Patient underwent simple hysterectomy.

### **Conclusion**

Leiomyosarcoma of uterine cervix is a rare disease and diagnostic confirmation is based on pathological and immunohistochemical profile. Prognostic factors include tumour size, stage, grade, mitosis, age and menopausal status; are similar to uterine leiomyosarcomas. In general, total abdominal hysterectomy with bilateral salpingo-oophorectomy represents the standard treatment for cervical leiomyosarcoma.

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