

# LEIOMYOSARCOMA OF THE CERVIX

(Report of 3 Cases)

by

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Leiomyosarcoma of the cervix is an extremely rare entity and few isolated cases have been reported by Bláustein and Immerman (1963), Thakur *et al* (1966) and Rizvi and Tyagi (1974). There are reports of co-incident carcinoma of cervix and leiomyosarcoma reported by Reinberger and Mackey (1951), and Paley *et al* (1969) who originally treated their cases for carcinoma cervix but incidentally discovered leiomyosarcoma of the cervix. The present communication relates to 3 cases of leiomyosarcoma seen at L.H.M.C.H., Delhi which are being reported because of extreme rarity.

## Case 1

Mrs. R. K. 50 years, P7 +0 was admitted on 3rd July, 1971 with complaints of irregular bleeding and foul smelling vaginal discharge for the past 8 months. She had backache and pain in the lower abdomen for 1 month. Her past and family history were non-contributory. She

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had normal menstrual cycles of 3/28 days, regular till 8 months ago.

On examination patient was mildly anemic. A mass was filling the vagina, obliterating the posterior lateral and anterior lip of the cervix. Body of the uterus was normal and the fornices were free.

**Speculum examination:** A cervical polyp with cervical erosion was seen. A cytological examination of vaginal smear showed numerous histiocytes and parabasal cells with mild dysplastic changes. Cervical polypectomy was done and the histopathological report was leiomyosarcoma of the cervix. This was followed by a total abdominal hysterectomy on 9th July, 1971. Her post operative period was uneventful and she was discharged in good condition.

**Specimen:** Grossly, the uterus measured 10 x 6 x 6 cms in size. The external os of the cervix was not clearly made out. The cervical canal showed a submucous sessile rounded mass 4 x 3 cms in size. The cut surface of the latter was greyish white with areas of hemorrhage. The endometrial cavity was slightly dilated and the myometrium varied in thickness from 1 to 1.25 cms. No leiomyoma was seen in the myometrium.

Microscopically, the microsection from the tumour in the cervix showed irregularly proliferating and interlacing bundles of smooth muscle fibres and fibrous tissue (Figs. 1 and 2). The spindle shaped cells of the tumour showed hyperchromatism with mitotic figures. Tumour giant cells were also seen (Fig. 2). Section from the uterine cavity showed proliferative endometrium. Histological diagnosis was leiomyosarcomatous polyp.

## Case 2

Patient B, 30 years, P9 + 1 was admitted on 12th June, 1971 for continuous vaginal bleeding following full term normal delivery at home 2 months ago. Prior to this her menstrual cycles were 3-4/30 days, regular. She had 9 full term normal deliveries and one abortion.

Patient looked mildly anaemic. Pelvic examination revealed cervix which was replaced by an excavating growth and as admitted one finger. Uterus was of normal size. There was marked infiltration of the left fornix leaving little free space. Right fornix was clear.

Rectal examination showed involvement of the parametrium half way upto lateral pelvic wall.

On speculum examination ulcerative growth of the cervix with necrosis was seen.

A clinical diagnosis of cancer cervix stage II-B was made. On cervical biopsy a histopathological diagnosis of sarcoma of the cervix was made. Vaginal cytological studies showed dysplastic changes in the epithelial cells. She had an extended abdominal hysterectomy on 13th July, 1971 and developed urinary tract infection, with coliform organisms postoperatively which responded well to kanamycin. She was discharged in good condition on 3rd August, 1971.

**Specimen:** Grossly, the specimen consisted of uterus with adnexae. Uterus measured 9 x 5 x 4 cms. The cervix was replaced by irregular growth with very friable surface. The uterine wall measured 2 to 3 cms. in thickness.

Microscopically biopsy and the sections from the cervix showed identical appearance. The tumour consisted of irregularly proliferated oval or spindle shaped cells. These cells were arranged in interlacing fashion at places. The tumour cells showed hyperchromatic nuclei with giant cell formation (Fig. 3) Sections from the uterine wall showed cystic glandular hyperplasia of the endometrium which was infiltrated at the junction by the tumour cells. Histological diagnosis: Leiomyosarcoma of the cervix.

## Case 3

Patient W, 40 years, P6 + 0. was admitted for the first time on 18th September, 1971 with complaint of a mass protruding out from the vagina on straining for 8 months. She had continuous vaginal bleeding for the same duration. She had regular menstrual cycles 3-4/28 days before this. She had 6 full term normal deliveries, last child birth was 14 years ago.

On examination, patient appeared anemic. Pelvic examination revealed a patulous cervix having a polyp attached to it with a thick pedicle. Uterus was anteverted and normal in size. No adnexal mass was felt.

Speculum examination showed a necrotic mass lying in the vagina.

**Investigations:** Blood Hemoglobin 3.25 G per cent. TLC 12500/cumm. ESR 50 mm in first hour. PCV 12 per cent. Peripheral smear revealed metamyelocytes 10 per cent. Red cells were microcytic with marked hypochromia. Lymphocytes series showed a shift to the left. Her other investigations including blood sugar curve, liver function tests, urea, bleeding time, clotting time, x-ray chest and electrocardiogram were essentially normal. Vaginal smear showed highly infected smear and few parabasal cells showing mild dysplasia. The patient was given two units of blood transfusion and was put on antibiotics and parenteral iron therapy.

Polypectomy was done on 10th October, 1971 which showed leiomyosarcoma of the cervix. This was followed by total hysterectomy on 25th October, 1971. She had uneventful postoperative period and was discharged in good condition on 18th November, 1971.

**Specimen:** Grossly, polypectomy specimen was an oval encapsulated tissue of 2 x 2 cms. in size. It was soft in consistency. The cut surface was soft greyish white with areas of hemorrhage. Hysterectomy specimen consisted of uterus and cervix. Extension of the growth in the myometrium was not seen at the region of attachment of pedicle of the polyp.

Microscopically, tumour showed irregularly proliferated spindle or oval shaped cells with anisocytosis and anisonucleosis. These cells contained oval or spindle shaped hyperchromatic nuclei with mitotic figures (Fig. 4). There was scanty connective tissue stroma. Sections from cervix and uterus did not show extension of growth. Histological diagnosis: Leiomyosarcoma cervix.

## Discussion

The problems inherent in the accurate diagnosis of leiomyosarcoma and the criteria of diagnosis have varied from author to author as per case reports in the literature. Lack of previous experience of these rare cervical tumours pre-

vents making any definite statement pertaining to its prognosis or clinical course. Since the natural history of this disease had been so variable in these 3 cases under report and the treatment imparted without follow up, it is impossible to know of its frequency of recurrence. Novak and Novak (1954) state that all constituents of uterus have a common embryonic ancestry i.e. mesoderm. It is possible that leiomyosarcoma could have any of these elements as the point of origin which may apply equally well to cervix.

#### *Summary*

Three cases of leiomyosarcoma of the cervix in the age group 30 to 50 years are reported. Two had presented as cervical polypi and the third one as carcinoma cervix stage II. The possible existence of

a sarcomatous change in a leiomyoma of the cervix should be raised if it is accompanied by any hemorrhage from the tumour. This was obvious from the histories of the patients and local examination of growth. It is felt that a vigorous search should be made for sarcomatous changes in a cervical polyp.

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*See Figs. on Art Paper V*