ENDOMETRIAL STROMAL SARCOMA

(A Case Report)

by

M. C. R. VYAS,* M.D.
D. R. MATHUR,** M.D.
M. C. BANSAL,*** M.S.
ANNAPURANA MATHUR,**** M.S.
and
C. S. BAIS,***** M.B.,B.S.

Mesenchymal tumours arising in the uterus composed of cells with morphology of endometrial stromal cells are rare. These have been designated by variety of terms in literature, due to its uncertain histogenesis and in an attempt to express its clinical behaviour.

The histogenesis of these lesions have been attributed to endometrial stromal cells (Ramsey, 1966), derivations from pericytes (Pedowitz *et al*, 1954) and from pluripotent mesenchymal elements (Evans, 1966).

CASE REPORT

B.B., a 45 year old Hindu female, nulligravida was admitted to Umaid Hospital attached to Dr. S. N. Medial College, Jodhpur in March, 1977 for irregular, intermittent vaginal bleeding of one month duration associated with pain in the lower abdomen and whitish vaginal discharge off and on for last one month.

Menstrual History: Patient attained menarchae at the age of 14 years and her menstrual cycle was of 3-4/30 with normal flow and was regular and painless.

Obstetrical History: Patient had no delivery, had no abortions and neither used any contraceptive device nor pills nor had any contributory gynaecological problem. Na rtr

General Physical Examination: A normal built and moderately nourished woman with moderate anaemia.

On abdominal Examination uterus was regularly enlarged upto 16 weeks size of pregnancy and was firm, neither tense now tender.

On speculum Examination bleeding through os was present. Cervix was balooned up and an irregular polypoidal growth was protruding through the os. On vaginal examination a polypoidal, non-pedunculated, friable growth was protruding through the dilated cervix whose rim was felt healthy, uterus was mobile and fornices were free.

A clinical diagnosis of fibroid polyp was made and total hysterectomy with bilateral salpingo oophorectomy was performed. Patient made an uneventful post-operative recovery. A brief follow up of six months was available and the patient was free from tumour.

Gross Appearances: The uterus was symmetrically enlarged measuring 11 x 10 x 7 cms. The endometrium showed irregular thickening at places. A whitish yellow mass measuring 8 x 5 cms. in diameter was seen filling complete uterine cavity and was of rubbery to friable consistency. The junction between myometrium and endometrium could be seen at some places. Tumour nodules upto 2 cms. diameter were

*Reader in Pathology and Microbiology.
**Lecturer in Pathology.
***Lecturer in Obstetrics and Gynaecology.
****Lecturer in Obstetrics and Gynaecology.
*****Senior Demonstrator in Pathology.
Department of Pathology and Microbiology and Department of Obstetrics and Gynaecology, Dr. Sampurnanand Medical College, Jodhpur.
Accepted for publication on 22-4-89.

present deep into myometrium. Cervix showed hypertrophy. Both ovaries and fallopian tubes were normal.

Microscopic Appearance: Endometrium showed glands in proliferative phase with adenomatous hyperplasia. Myometrium showed evidence of adenomyosis (small islands of endometrial stroma and glands). The tumour was composed of cells resembling endometrial stromal cells of uniform size with pale eosinophilic cytoplasm and indistinct cell borders and nuclei were oval uniform with peripheral chromatin and 1-2 nucleoli. The cells were closely packed and showed scant mitosis. The border of tumours were sharp (Fig. 1). The tumour tissue was seen to grow within and along thin walled vessels, in arears it was seen within vessels while in others it showed sub-endothelial location (Fig. 2). A histological diagnosis of endometrial stromal sarcoma was thus made. Cervix showed marked chronic non-specific cervicitis. Ovaries and tubes were unremarkable.

Discussion

Norris and Taylor (1966) in a review of a large series of 53 endometrial stromal tumours opined that these lesions did not arise from adenomyosis as none of the tumour in their series arose from an area of adenomyosis. Also, the incidence of adenomyosis was no greater in the series of tumour patients than in control series of uteri removed for other reasons. The present case showed associated characteristic adenomyosis. According to these authors the tumours are true neoplasms. They divided endometrial stromal tumours in 2 groups. In first group stromal nodules with expansile pushing margins lacking capacity to infiltrate myometrium, may extend beyond uterus. The second group shows lesions from endometrial stromal sarcoma to mesenchymal tumours with propensity to invade lymphatics and veins and to extend beyond uterus and metastasize.

Distinction between various low grade endometrial stromal sarcoma and varying degrees of stromatosis may be a real histological challenge (Novak, 1966). The tumours with 10 or more mitoses per high power field often show marked pleomorphism and have poor prognoses. At the other end of spectrum is endometrial stromal sarcoma with endometrial stromal proliferation showing rare or absent mitosis and little or no pleomorphism. The only evidence of malignancy is the propensity for vascular invasion. The designation of sarcoma is normally hesitantly applied to these lesions because long survival even after incomplete removal have been reported (Hunter, 1953).

Ramsey (1966) using electron microscopy showed the definite likeness between the cells of these tumours and the stromal cells of early proliferative phase endometrium and these observations have excluded their origin from pericytes as in haemangiopericytoma.

References

1. Evans, R. W.: Histological Appearance of Tumours. E & S Livingstone Ltd. London. pp. 743, 1966.
2. Hunter, W. C.: Am. J. Obstet. Gynec. 83: 1564, 1962.
3. Norris, H. J. and Taylor, H. B.: Cancer. 19: 755, 1966.
4. Novak, E. R. and Woodruff, J. D.: Novaks' Gynecologic and Obstetrics Pathology, W. B. Saunders' Company. Philadelphia. London. pp. 239, 1966.
6. Pedowitz, R., Felmus, L. B. and Grayzel, D.: Am. J. Obstet. Gynec. 67: 549. 1954.
6. Ramsey, H. J.: Cancer. 19: 2005, 1966.

See Figs. on Art Paper IV