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CASE REPORT

# Leiomyoblastoma of urethra – A rare clinical entity

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## ABSTRACT

***A rare case of leiomyoblastoma of urethra is described here and its management discussed.***

***Key words: Leiomyoblastoma, urethra.***

## INTRODUCTION

Leiomyoblastoma (bizarre leiomyoma) is a rare myogenic tumour which shows an unusual morphological alteration of the smooth muscle cell. Identification of potentially malignant leiomyoblastoma is difficult and not always possible. There is high rate of misdiagnosis[1].

These tumours show a striking predilection for gastrointestinal tract, abdominal cavity and uterus. Rare cases have been reported in the neck, vulva and skin[2,3,4].

Leiomyoblastoma of urethra is an extremely rare clinical entity and hence a case of the same is presented here.

## CASE REPORT

Mrs. P., a 28 years old multiparous patient was admitted to the University Hospital, Varanasi, with the history of scattering of urinary stream for the past six months. It was not associated with pain or burning during micturition. She took some treatment from a local doctor but without any relief.

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On general examination the patient was in good health. Her pulse rate was 80/minute and B.P. 110/70 mmHg. There was no pallor. Cardiovascular and respiratory systems' examination was normal. Abdominal examination also revealed no abnormality. On local examination of the vulva a circular growth 2" × 2" with a central orifice was seen protruding through the pudendal cleft. At first glance it appeared to be the prolapsed cervix, but on speculum examination it was found to be the enlarged urethra and the cervix was seen behind it (Fig. 1).

The urethra was circumorally enlarged, hypertrophied, having a firm, nontender growth. The cervix was normal looking. On bimanual examination the uterus was normal in size, anteverted, firm, mobile and the fornices were free bilaterally.

Her Hb was 12 mg%, TLC, DLC, urine routine and microscopy, urine culture and sensitivity, blood urea, sugar, serum creatinine and electrolytes were all within normal limits. Ultrasonography of her abdomen revealed no abnormality.

Her cystoscopy was carried out to see the distance of the growth from the sphinctor vesicae or any other associated pathology in the bladder. The growth was found to be 2 cm away from the sphinctor vesicae without any bladder pathology. Distal urethrectomy was done to excise the growth completely and the patient was put on continuous cathetorization and antibiotics for seven days. Her post-operative period was uneventful. The growth was sent for histopathological examination which diagnosed it to be a case of benign leiomyoblastoma of urethra (Fig. 2). After surgery the patient had normal urinary stream and good sphinctoric function. Her one year follow up was also normal.

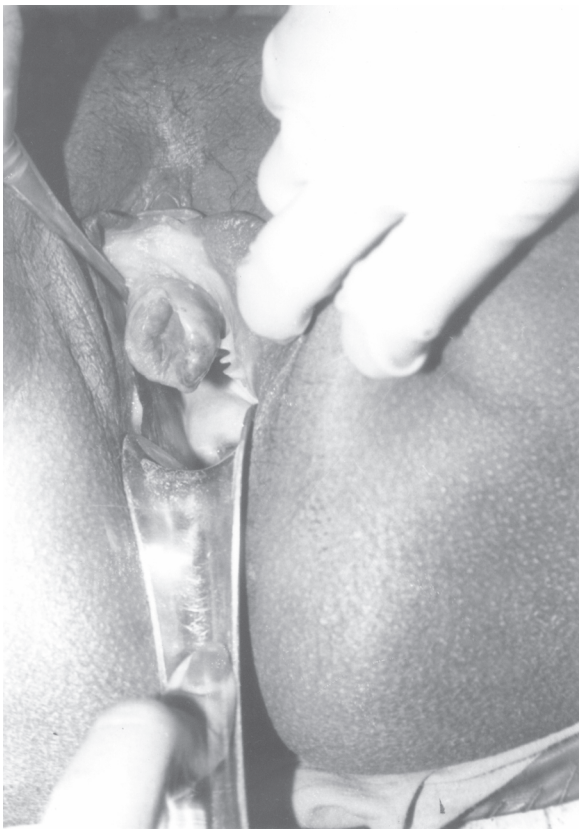

**Fig. 1.** Leiomyoblastoma of the urethra.

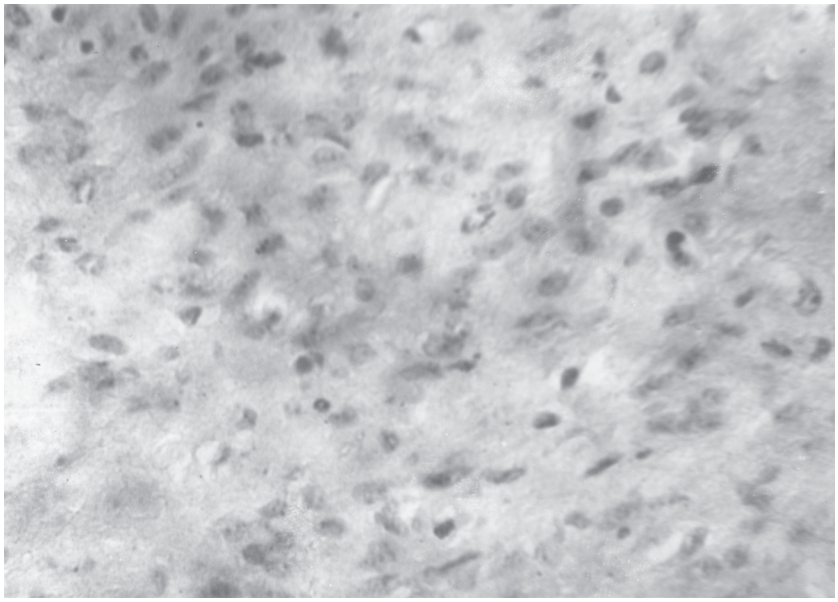

**Fig. 2.** Histopathological examination of leiomyoblastoma showing nodules of short spindles and round cells arranged in sheets. Cytoplasm is abundant and vacuolated.

## DISCUSSION

'Leiomyoblastoma' is a biologically indeterminate group of smooth muscle tumours characterized by a peculiar polygonal or epithelioid cell, often with clear cytoplasm. These tumours rarely show clearcut features of muscle differentiation ultrastructurally and do not have the same immunophenotypic profile as ordinary leiomyomas and leiomyosarcomas. These lesions at best only partially resemble smooth muscle tumours, and are currently designated as 'epithelioid smooth muscle tumours'.

Leiomyoblastoma occurs principally during mid or late adult life. Males are more often affected than females. Majority of the leiomyoblastomas of the gastrointestinal tract are histologically and biologically benign while the soft tissue leiomyoblastomas are usually malignant[5]. Grossly epithelioid smooth muscle tumours of soft tissue (omentum and mesentery) are usually large white-gray masses with areas of haemorrhage or cyst formation. Microscopically these tumours are composed of nodules of short spindled and rounded cells arranged in sheets. These nodules vary in cellularity. The nucleus is round or oval and centrally located. The cytoplasm is abundant, eosinophilic or clear. Occasionally the cytoplasm is vacuolated and the nucleus is displaced to one side, creating a signet ring cell appearance. Multinucleated giant cells are sometimes present. In malignant forms the cells are less mature with less abundant cytoplasm with greater degree of pleomorphism and mitotic activity. The criteria for malignancy are mitotic figures more than 10 per 50 HPF and size of the tumour greater than 6 cm. These tumours are frequently punctuated with microscopic cysts. The metastases from these tumours resemble the parent growth.

Our patient had a benign leiomyoblastoma which was completely excised and therefore the prognosis was good. Her one year follow up was satisfactory without any recurrence or metastasis.

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