

High-Grade Leiomyosarcoma of the Urinary Bladder With Five-Year Recurrence-Free Survival

A Case Report and Review of the Literature

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KEY MESSAGE | Limited chemotherapy response; margin-negative resection followed by prolonged reported disease control.

01 CLINICAL PRESENTATION

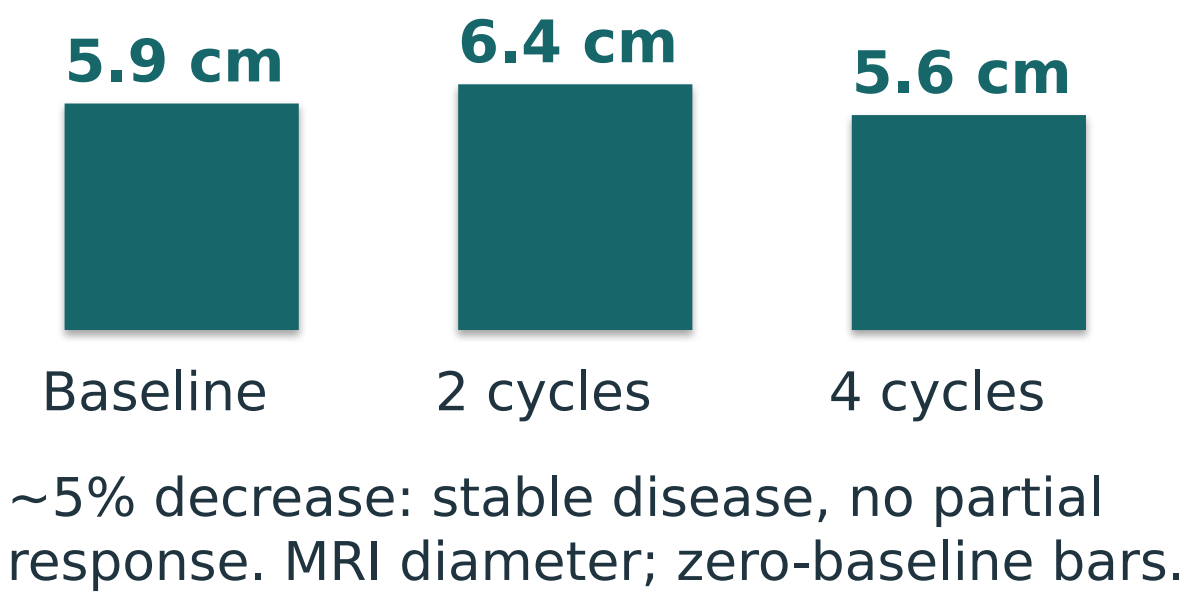
- Woman in her late forties; haematuria and lower abdominal pain for two months.
- Recent myocardial infarction; taking dual antiplatelet therapy.
- MRI: 5.9 cm bladder mass and borderline iliac nodes. No distant metastases.

02 PATHOLOGICAL DIAGNOSIS

- TURBT: high-grade spindle cell neoplasm with 20 mitoses per 10 high-power fields.
- Desmin and smooth muscle actin positive; cytokeratin, CK7, p63 and S100 negative.
- En bloc resection supported a bladder primary; uterus showed benign leiomyomata.

03 NEOADJUVANT RESPONSE

Four cycles of ifosfamide + doxorubicin over approximately three months



BACKGROUND & LITERATURE

- Rare adult bladder sarcoma; prospective perioperative treatment data are lacking. [1,2]
- Population cohort (183 cases): five-year cancer-specific survival 47%. [1]
- Review (210 cases): approximately 75% high grade; perioperative therapy benefit remains uncertain. [2]
- This case: limited chemotherapy response, clear margins and no reported recurrence at 63 months.

Context only: endpoints and populations differ.

04 DEFINITIVE MANAGEMENT

- Radical cystectomy, hysterectomy, bilateral salpingo-oophorectomy, pelvic lymphadenectomy and ileal conduit.
- Surgery approximately five months after diagnosis.
- No adjuvant chemotherapy or radiotherapy.

05 RESECTION FINDINGS

- Residual 45 mm, organ-confined, high-grade leiomyosarcoma.
- All surgical margins negative; 0/6 lymph nodes involved (reactive nodes).
- <50% necrosis; residual viable tumour.
- 12–13 mitoses per 10 high-power fields.

06 LONG-TERM OUTCOME & SURVEILLANCE

63 months

After cystectomy
No clinical or reported radiological recurrence

- Clinically well; ECOG performance status 0–1 and functioning stoma.
- Ureteroenteric stricture with hydronephrosis required temporary nephrostomy; stage IIIa chronic kidney disease developed.
- Last institutionally reviewed CT: six months after surgery. Later outside imaging was informally reported as clear; images and formal reports were unavailable for central review.

07 CLINICAL IMPLICATIONS

- Margin-negative resection is central; reassess response during systemic therapy. [1,2]
- Borderline nodes do not prove metastasis; specify the sarcoma staging system.
- Monitor renal function and obtain surveillance imaging for central review.

SELECTED REFERENCES | *Corresponding author: Saad Ehsan

[1] Rodríguez D, et al. Analysis of 183 bladder leiomyosarcomas. Urol Oncol. 2014;32:958–965.
[2] ZieschangH, et al. Systematic review and meta-analysis. Urol Int. 2019;102:96–101.