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Podium Poster

MRI-guided focal laser ablation in localized prostate cancer.

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INTRODUCTION

MRI-guided focal laser therapy is emerging as an intermediate modality between radical treatment and active surveillance in managing low-intermediate risk prostate cancer.

AIM

To examine the safety, feasibility and oncological outcome of in-bore MRI-guided focal laser ablation (FLT) in patients with low-intermediate risk prostate cancer.

METHOD

Inclusion: 50-75 Y/O with Low-Intermediate risk prostate cancer MRI visible lesions, PSA <10, < cT3, Gleason 7 < (85% Gleason 7).

In-Bore MRI with a diode laser was used for ablation.

Follow-up: PSA, IPSS, SHIM at 1,3 and 6 months then q/6 mo

MRI at 3 months, MRI-guided biopsy at 6 months

Success Definition: ablated area on targeted biopsy shows no or insignificant cancer (Gleason 6 ≤ 3mm) At 6 months.

RESULTS

31 patients underwent FLT

PSA, IPSS and SHIM scores were not significantly different from baseline at 6 months. No patient developed incontinence following the procedure.

Out of 26 patients who had a follow-up biopsy at 6 months, treatment was successful in 22 (85%)

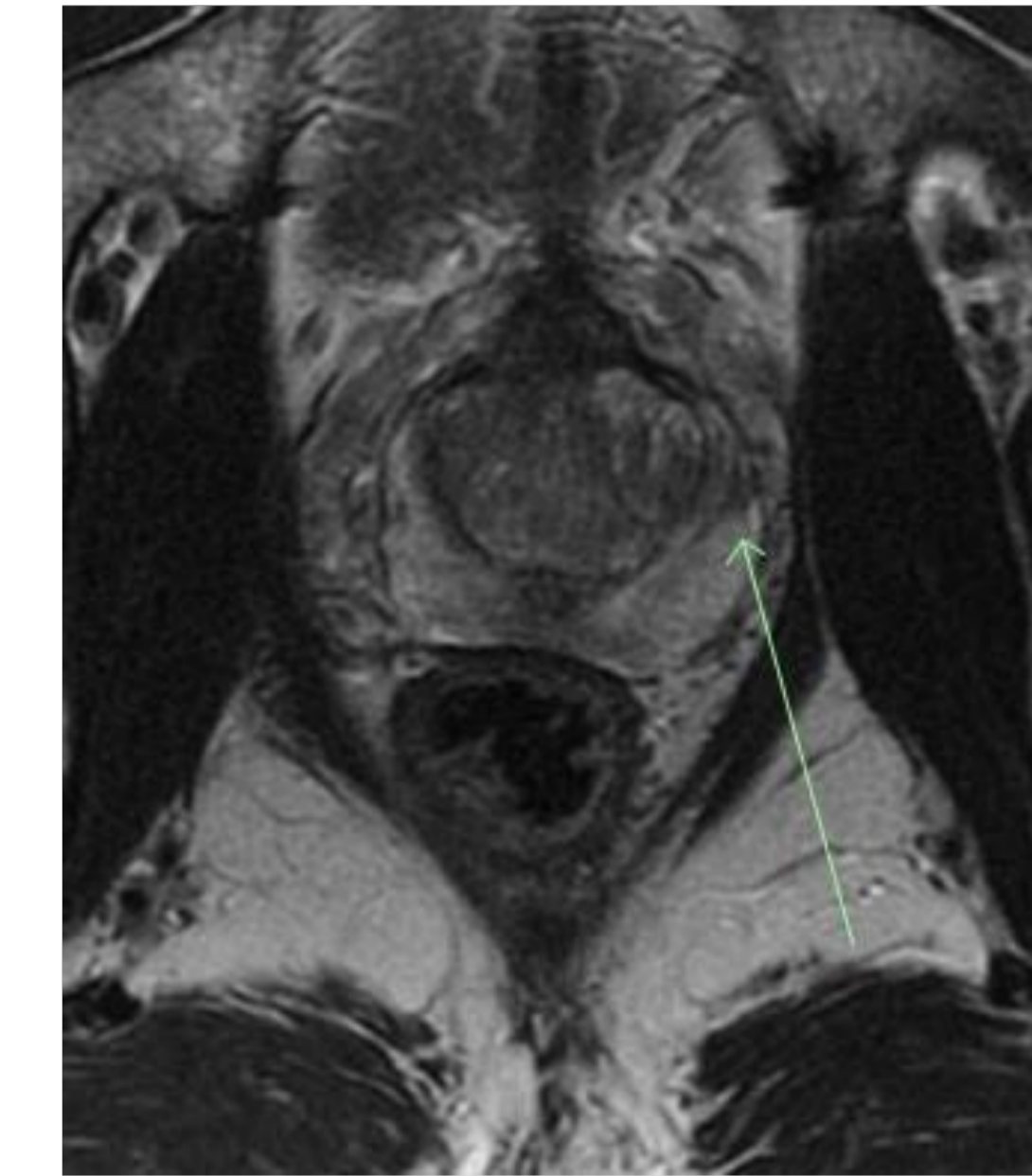
Five patients had persistent cancer in ablated areas

Four patients had de-novo cancers outside ablated areas (Gleason 6)

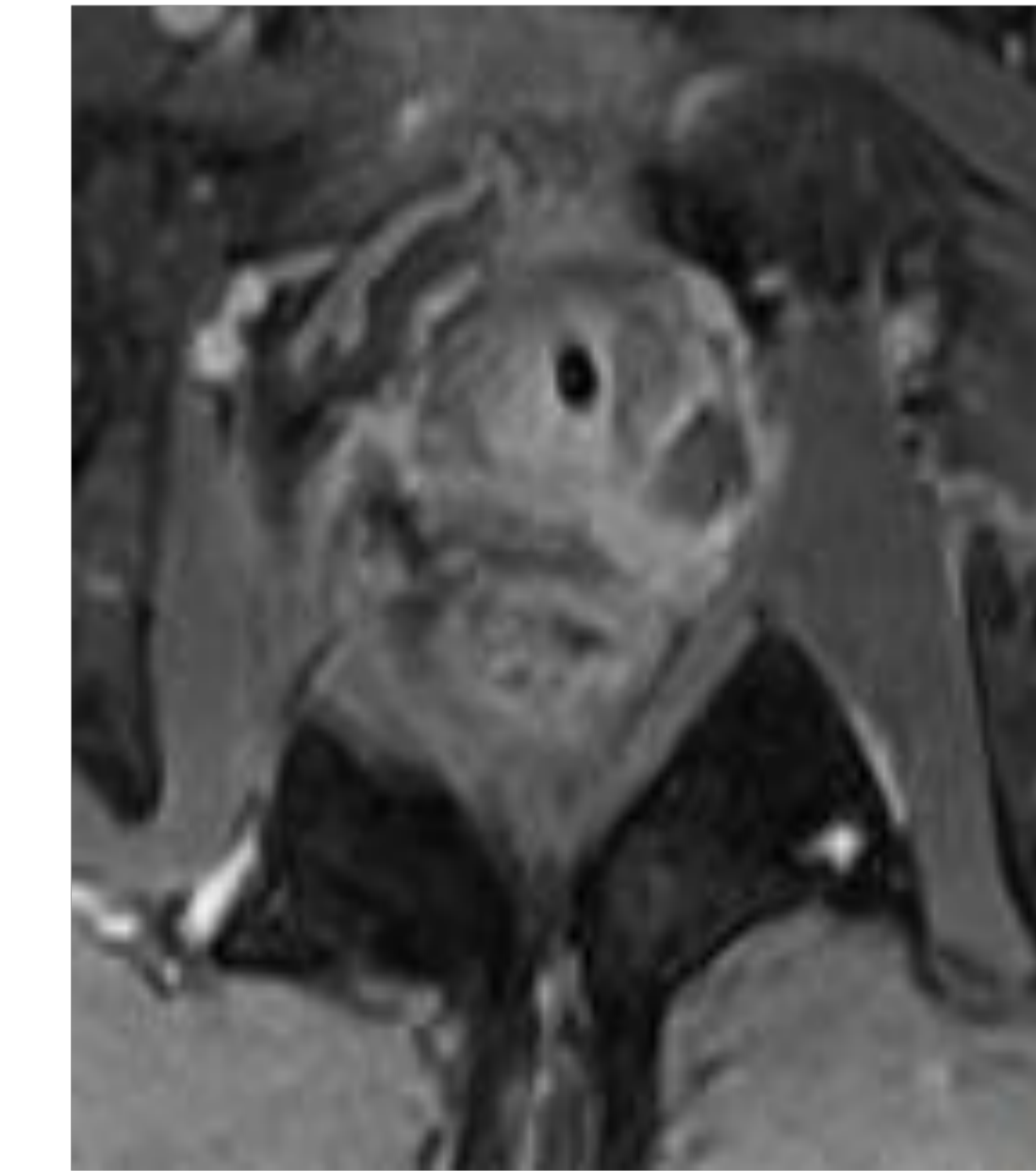
Five patients are still pending biopsy

Complications: 4/31 temporary IDC

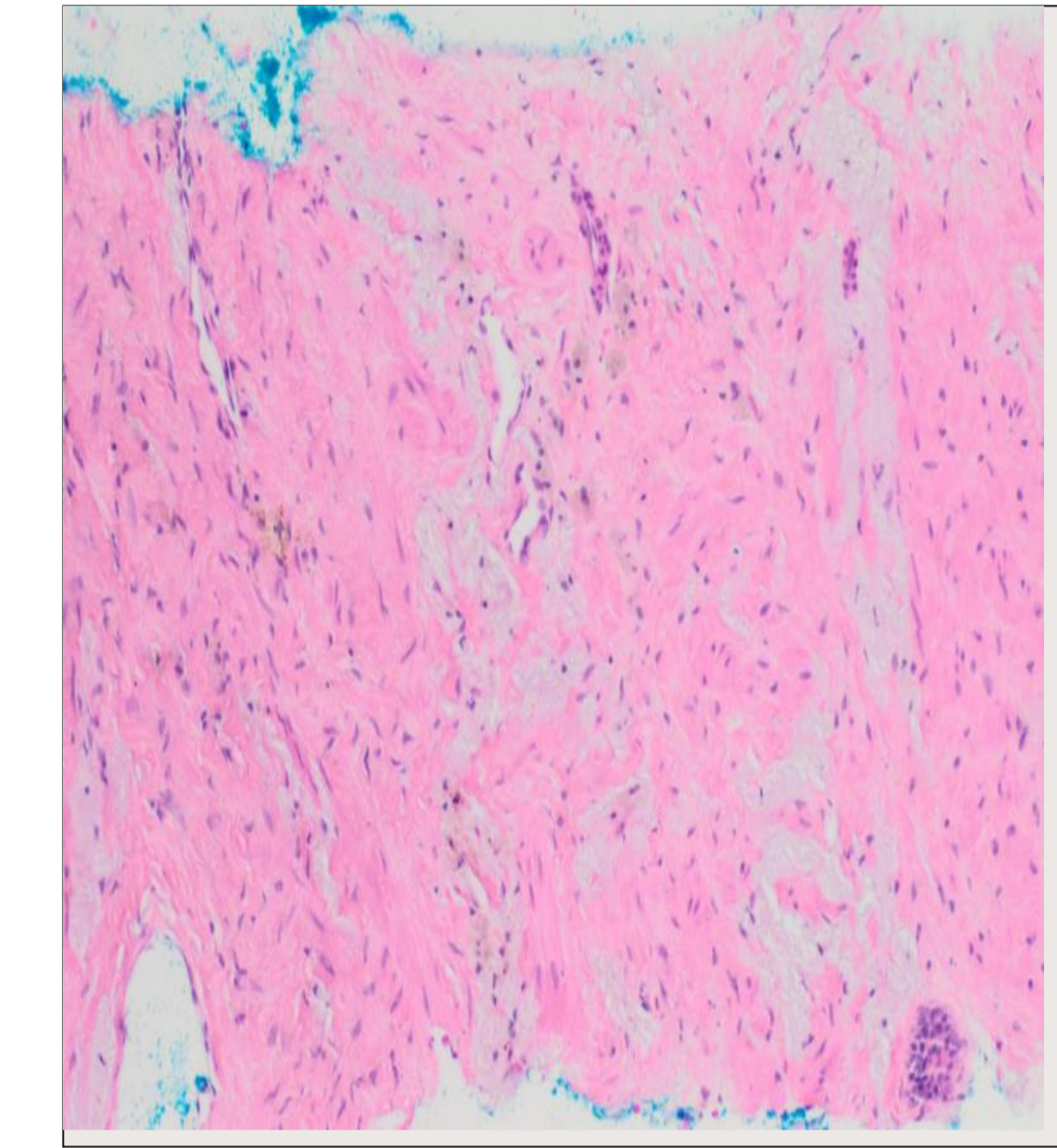
4/31 macroscopic haematuria



69 yo, psa 4.9, MRI: PI-RADS 4 lesion in left base, biopsy: G (4+3)



Same patient with T1 contrast enhanced image immediately following laser ablation showing lack of enhancement at ablated area. Biopsy at 6 months : no cancer



63 Y/O, PSA: 6.4, biopsy 6 months after ablation showing only fibrous tissue with no cancer (original cancer G 3+4)

CONCLUSIONS: MRI-guided focal laser ablation is safe with minimum morbidity and no adverse effects on continence or potency. The oncological outcome is highly encouraging with a 85% success rate. Larger scale trials with longer follow-up are needed.

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