

# Real-world observation 5-year data for HIFU prostate cancer in Singapore

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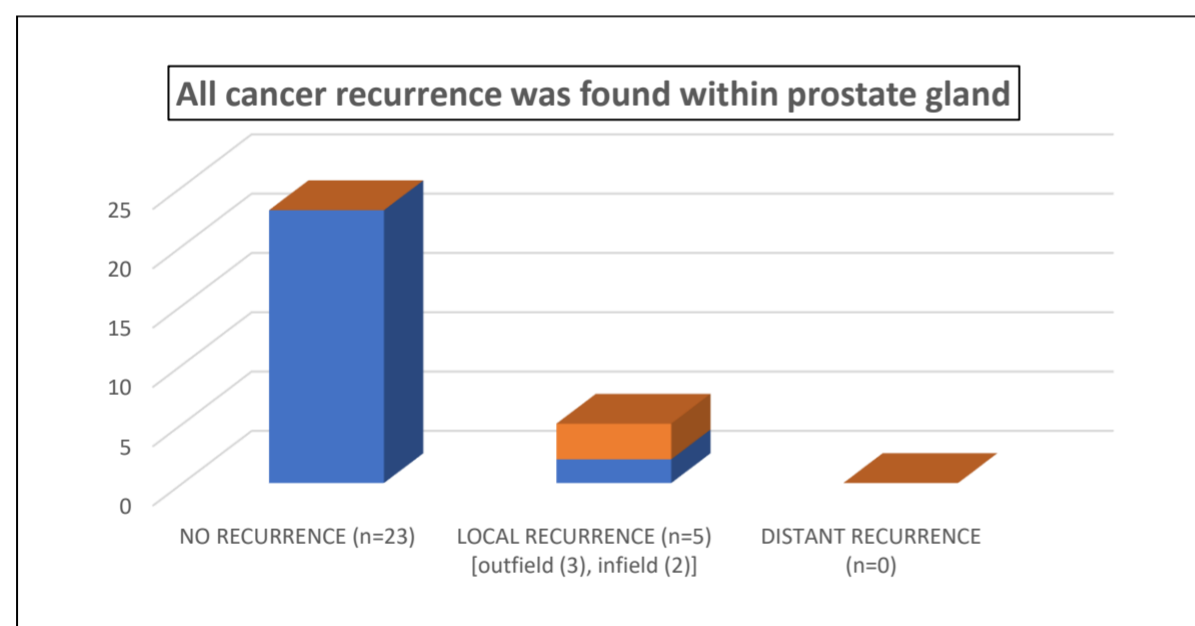
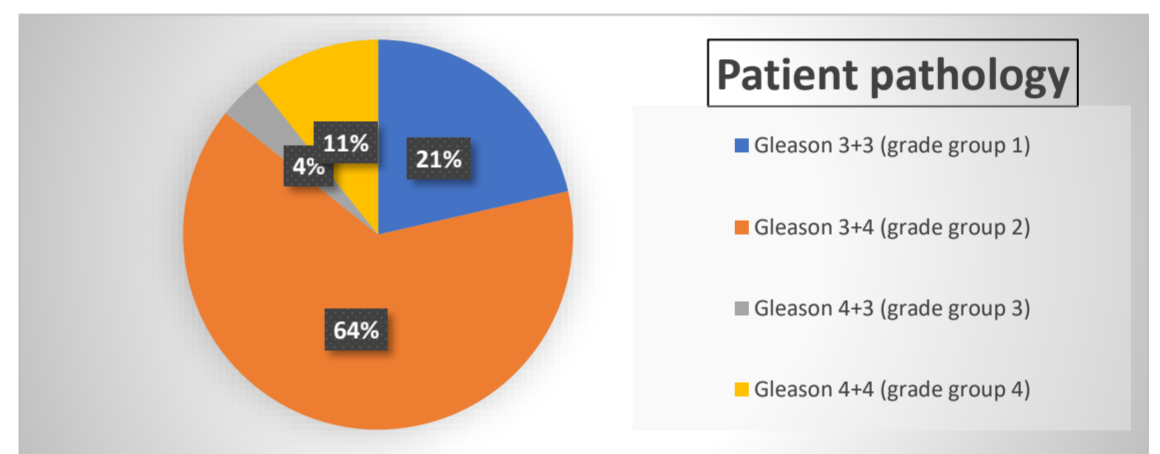
**Objectives:** Focal therapy for localised non-metastatic prostate cancer achieved 98% complete pad-free continence after high-intensity focused ultrasound (HIFU)<sup>1</sup>, similar outcome to radical prostatectomy with 5-year and 8-year failure-free survival (FFS) at 86% and 83% respectively<sup>2</sup>, acceptable 15-year cancer-specific survival (CSS) rates with low-risk and intermediate-risk cancer at 95% and 89% respectively<sup>3</sup>, and 15-year multicentre experience showing 252 out of 1,379 patients (18.3%) required post-HIFU repeat focal treatment due to residual or recurrent cancer<sup>4</sup>.

Singapore started its first high-intensity focused ultrasound (HIFU) treatment for localised organ-confined prostate cancer in 2019. This real-world observation study is an audit of all patients in our HIFU prostate cancer database within the private Urology practise in Singapore.

**Methods:** All patients who underwent HIFU therapy using EDAP-TMS's Focal One machine for cT1-2 N0M0 prostate adenocarcinoma from Nov 2019 to June 2024 were analysed. Laboratory results, imaging studies and pathology reports were assessed by individual urologists who managed their patients independently, based on best practices in the real-world private practice clinical settings in Singapore.

**Results:** Twenty-eight patients (n=28) between 46 years to 88 years old underwent primary focal (n=2), whole gland (n=1) and hemi-gland (n=25) protocol. Prostate adenocarcinoma grade group 2 (n=18) was predominant.

Our youngest patient was 46 years old with Gleason 4+4 (grade group 4) adenocarcinoma, achieving post-HIFU nadir total PSA 0.278 ug/L, and without sexual or urinary side effects.



Overall post-HIFU complications included prostatitis (n=6), temporary urinary retention (n=3), erectile dysfunction requiring long-term medication (n=2), short-segment bulbar urethra stricture (n=2), and leg oedema without deep vein thrombosis (n=1).

Five (5) out of 28 patients (17.9%) developed localised cancer recurrence within the prostate gland, and underwent salvage da Vinci robotic prostatectomy (n=3), salvage radiotherapy (n=1) or active surveillance (n=1).

**Conclusion:** HIFU prostate cancer is a reasonable treatment option for localised organ-confined prostate adenocarcinoma in selected patients in Singapore, with treatment outcome and recurrence rates similar to experienced international focal therapy centres.

## References:

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