

MP18-7526: Effect of the Type of Cryo Probe on Oncological & Functional Outcomes for Primary Whole Gland Prostate Cryoablation

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OBJECTIVES

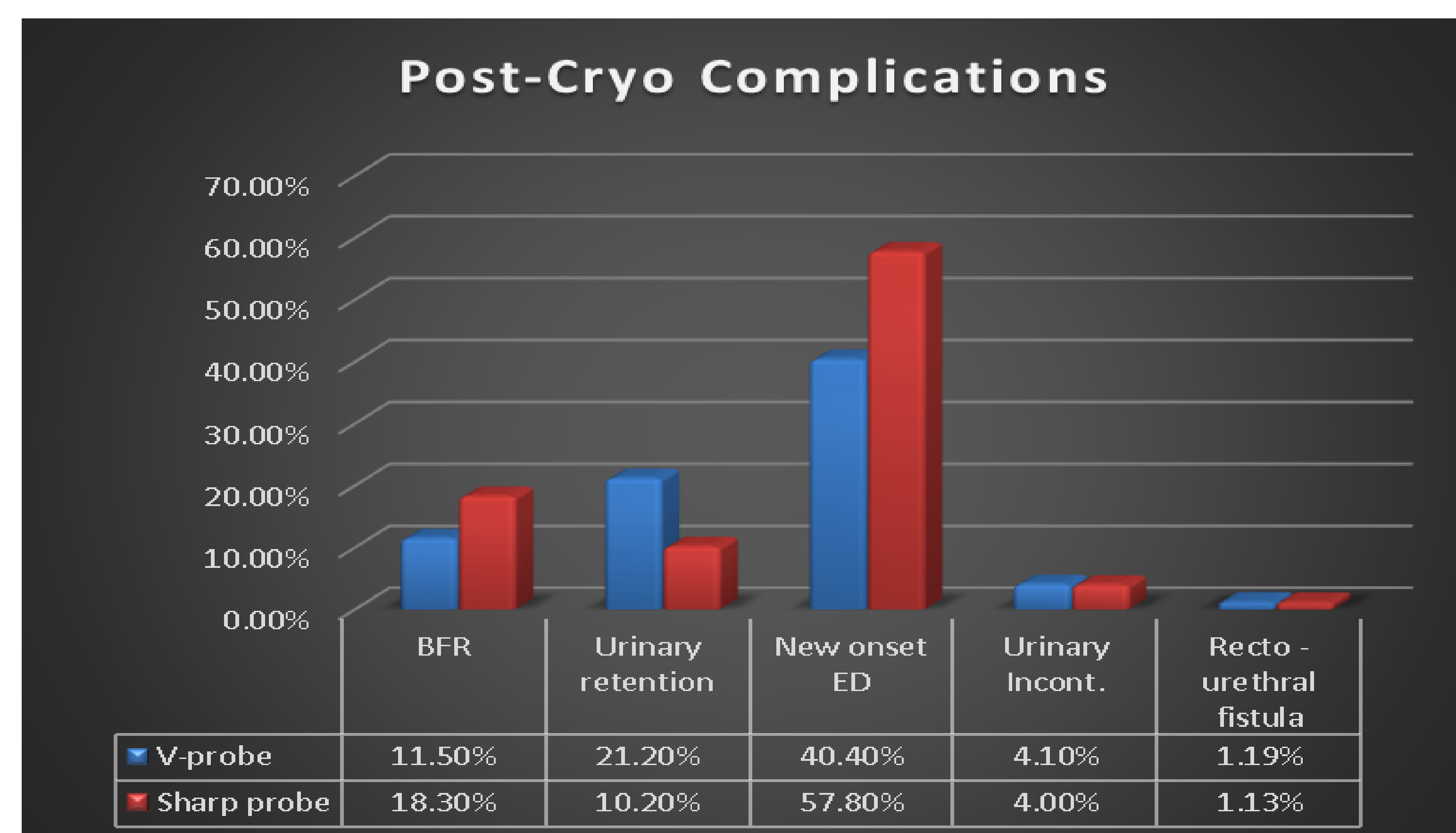
- To compare the effect of the Variable ice cryo probe (V-probe) and the conventional sharp probe on oncological & functional outcomes in men treated with primary whole cryoablation.

METHODS

- 1569 men with completed data were included among 4235 men treated with primary whole gland prostate cryoablation
- V-probes were used in 335 & sharp probes in 1234 cases.
- Oncological outcome including biochemical failure rate (BFR) was assessed.
- Functional outcomes including post-cryo urinary incontinence, urinary retention, ED and recto-urethral fistulae were compared.

RESULTS

- Median age was 71 years, median Gleason sum was 7 & median PSA was 6.5 ng/ml.
- V- cryo probe was used in men who were less likely to have clinical stage \geq T2b disease ($p < 0.001$), of non-AA race ($p = 0.02$), have lower median PSA ($p < 0.001$), have higher median TPV ($p = 0.01$) and were less likely to undergo NADT ($p = 0.004$) compared to sharp probe cases.
- V-cryo probe was associated with a lower BFR ($p = 0.003$). Higher risk of post-operative urinary retention ($p < 0.001$) & a lower risk of new onset ED ($p < 0.001$).
- No statistically significant differences in recto-urethral fistula ($p = 0.9$) or urinary incontinence rates ($p = 0.9$).



- On multivariable regression, using V-cryo probes was an independent predictor of decreased risk of biochemical failure, increased risk of urinary retention and decreased risk of 12 month new onset ED.

| Variables | Post – Cryo Retention | | New onset post -Cryo ED | | Biochemical Failure rate | |
|--------------------------|-----------------------|---------|-------------------------|---------|--------------------------|---------|
| | OR (95% CI) | P-value | OR (95% CI) | P-value | OR (95% CI) | P-value |
| Prior interventional BPH | 3.7 (1.7-7.9) | <0.001 | NA | NA | NA | NA |
| Clinical stage | 1.6 (1-2.5) | 0.04 | 1.4 (0.95-1.9) | 0.08 | NA | NA |
| ITPV | 0.99 (0.98-1) | 0.16 | NA | NA | NA | NA |
| NADT | NA | NA | NA | NA | 0.67(0.50-0.90) | 0.008 |
| Type of probe (v-probe) | 2.5 (1.7-3.7) | <0.001 | 0.57(0.39-0.86) | 0.007 | 0.58(0.40-0.85) | 0.005 |
| Gleason sum \geq 7 | NA | NA | NA | NA | 1.3(1.0-1.8) | 0.04 |

CONCLUSIONS

- The use of the V-probe was associated with an improved success rate of biochemical outcome compared to the sharp probe.
- The incidence of post-operative ED was lower with the use of the V-probe, however, at the expense of an increased risk of urinary postoperative retention compared to the conventional sharp probe.