Oncological and Continence Outcomes of Salvage Robot-assisted Radical Prostatectomy- Matched-Pair Analysis from a High-volume Centre

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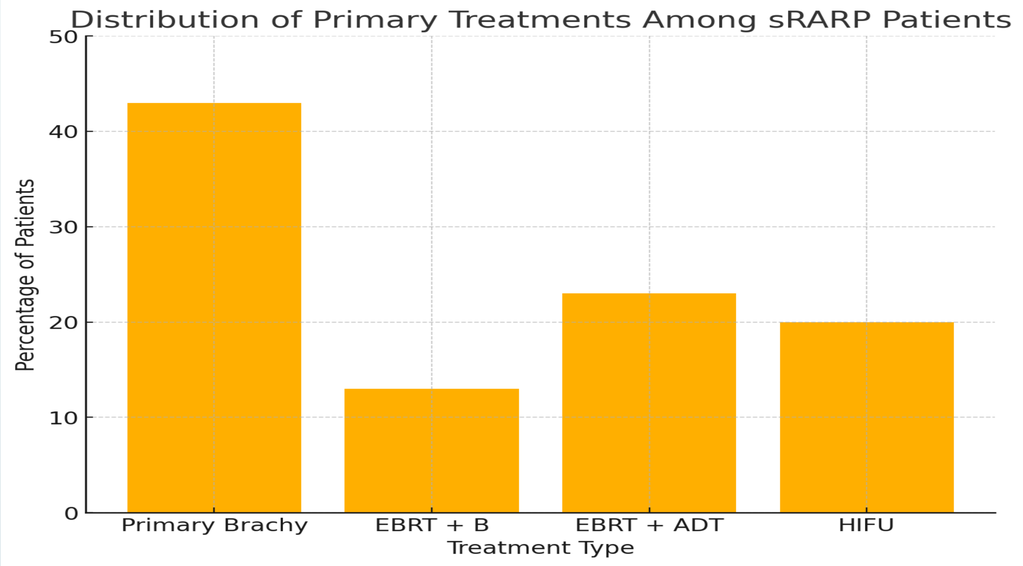
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Introduction

Salvage Robot-Assisted Radical Prostatectomy (sRARP) is a complex procedure performed in specialized high-volume centers. Generally, the outcomes of sRARP are considered inferior to primary RARP (pRARP). We conducted a matched-pair analysis of the oncological and functional outcomes of sRARP at our high-volume referral center.

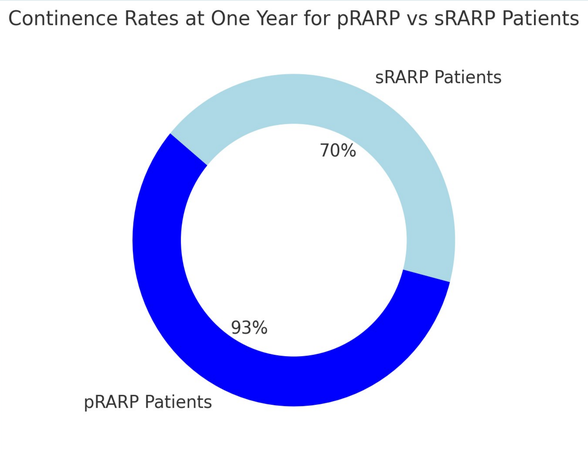
Methodology

Patients who underwent sRARP at our center from 2016 to 2023 were identified from our prospectively maintained database. The sRARPs were performed by consultant surgeons beyond their learning curve. Thirty sRARPs were matched to 90 non-salvage RARP (nRARP) controls (1:3) for age at RARP, BMI, PSA, clinical stage, pre-treatment Gleason grade group, D'Amico risk category, prior TURP, nerve spare, and lymph node dissection. One-year biochemical recurrence (BCR) and continence (zero/safety pads) rates were compared. Potency rates were not analyzed.



Results

Overall, 43% of sRARP patients had received primary Brachytherapy, 13% EBRT + Brachytherapy, 23% EBRT + ADT, and 20% HIFU. There was no significant difference in console time, blood loss, complications, extent of nerve spare, pathological upstaging/upgrading, and positive margins between the two groups. At one year, 93% of pRARP patients were continent compared to 70% of sRARP patients (P=0.002). Logistic regression showed sRARP was associated with poorer continence outcomes (OR 0.17, 95% CI 0.05-0.51, P=0.002) but not BCR. The type of primary treatment did not affect the continence or BCR rates in our study



Conclusion

sRARP is a safe procedure with comparable complication rates when performed in high-volume centers with appropriate expertise. sRARP is associated with equivalent BCR rates to nRARP, although continence rates are lower in sRARP.