Prostatic Artery Embolization preserves sexual function and halves hospital stay, while TURP provides deeper symptom relief - meta-analysis of 614 BPH patients

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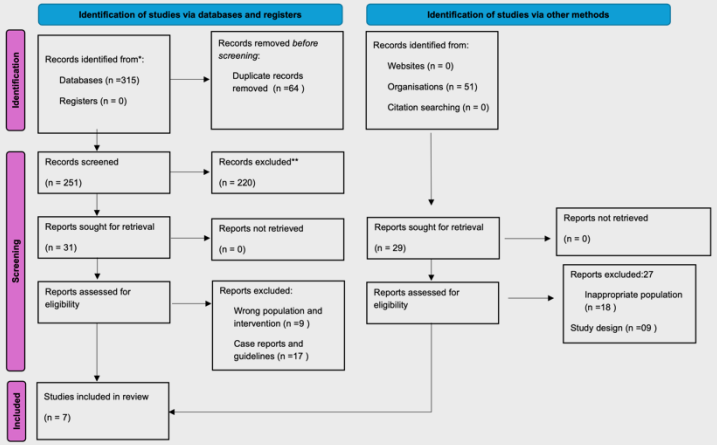
Rationale & Aims

BPH surgery has pivoted from maximising symptom relief to balancing QoL and sexual function.

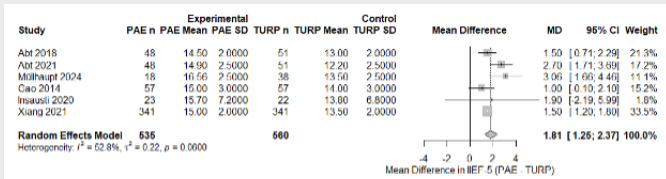
PAE preserves sexual function and cuts LOS without sacrificing QoL, but TURP may still win on durable symptom relief.

Methods

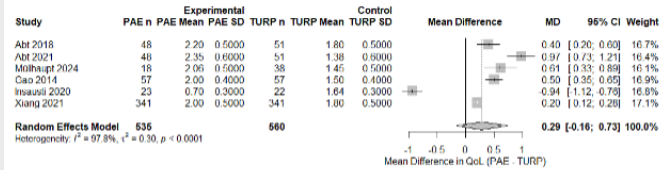
- 6-database search (Jan 2008 – Mar 2025); PRISMA compliant.
- 7 studies (n = 614) comparing PAE vs TURP included.
- Outcomes: IIEF-5, IPSS, IPSS-QoL, adverse events, re-intervention, LOS.
- Random-effects meta-analysis; heterogeneity via I^2.



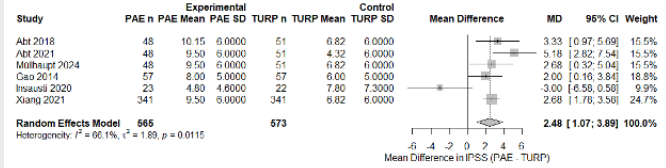
Results



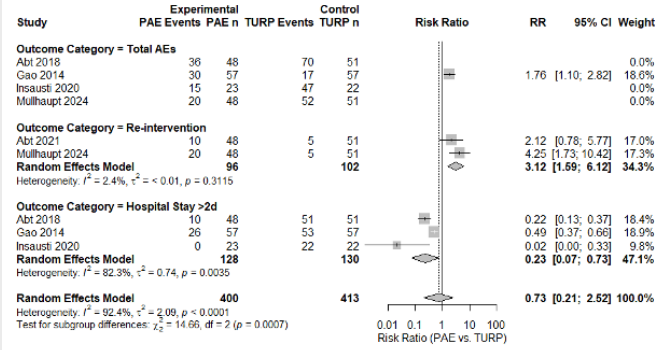
IIEF-5 12 m: PAE + 1.8 vs TURP (p < 0.001)



IPSS-QoL 12 m: No difference (MD 0.29, p = 0.21)



12 m IPSS: TURP - 2.5 vs PAE (p < 0.001)



Procedural outcomes: No overall difference (RR 0.73, p = 0.62; subgroups p = 0.0007)

Discussion / Key Messages

PAE	TURP
Preserves sex (+1.8 IIEF-5)	Best symptom drop (-2.5 IPSS)
LOS ≤ 24 h typical	Lowest re-op rate
3× re-intervention	Retrograde ejaculation common

- High heterogeneity - standardise PAE
- Tailor treatment to gland size, sexual goals & comorbidities

Conclusions

PAE is an attractive, minimally invasive option for men prioritising sexual function and rapid recovery, while TURP remains gold standard for durable IPSS improvement. A patient centred approach is required for optimum outcomes.