**Title**

Prostate artery Embolisation Assessment of Safety and efficacY (P-EASY): A collaborative approach to Australia's first prospective prostate embolisation trial

**Author and affiliations**

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**Background**

New treatment options are being developed for men with benign prostatic enlargement who fail medical therapy and are unsuitable for surgery. One such treatment gaining popularity is prostatic artery embolization.

**Aims**

To assess the safety and short-term efficacy of prostate artery embolisation (PAE), an emerging minimally-invasive treatment for lower urinary tract symptoms (LUTS) caused by benign prostate hyperplasia (BPH).

**Method**

Men with benign prostate hyperplasia (prostate size >40 cc) and moderate to severe lower urinary tract symptoms, who had failed medical therapy and declined or where unsuitable for surgical intervention were recruited to this study. All men underwent baseline clinical assessment, prostate artery embolisation and follow-up to three months post-procedure. The primary endpoints of this study were safety and feasibility. Safety was measured by the incidence of post-procedure adverse events and feasibility was defined by technical success. Secondary endpoints were clinical success at three months post-PAE, measured by changes in International Prostate Symptom Score (IPSS) and quality of life (QoL) score.

**Results**

No serious adverse events were observed in this study and all procedures were technically successful. For non-catheterised patients, overall clinical success was reported in 95.1% of cases (p<0.0001). On average, IPSS decreased by 80.7% (p<0.0001) and QoL scores improved by 80.6% (p<0.0001).

**Conclusion**

Prostate artery embolisation is a technically feasible and safe procedure. Early data indicate PAE can significantly reduce symptoms and improve quality of life, decrease prostate size, improve urinary flow and reduce post-void residual urine volumes. High rates of patient satisfaction were achieved in this study along with significant reductions in prostate symptoms and improvements in QoL.Recruitment for new studies comparing PAE to first-line medical therapy with urodynamic assessment is ongoing.

**References** (If applicable)