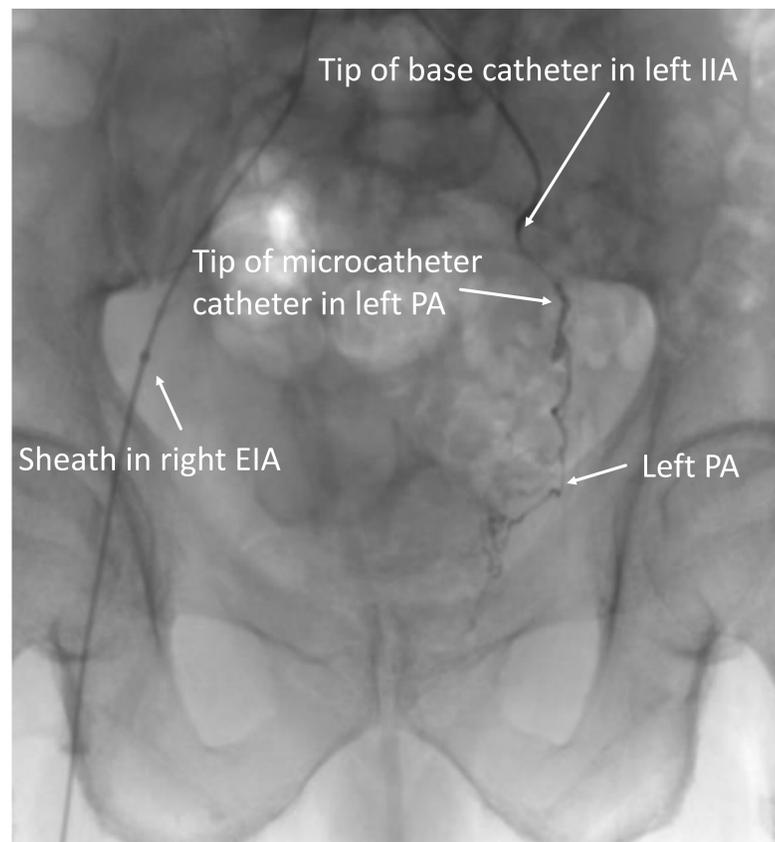


# Comparison Between the Volume of Embolic Used and Clinical Outcomes During Prostate Artery Embolisation

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## BACKGROUND

Prostate artery embolisation (PAE) is a minimally invasive procedure to manage benign prostate hyperplasia (BPH). Whilst positive clinical outcomes are well established, determining clinically relevant peri-procedural end-points has proved challenging. We investigated whether the total volume of embolic used during PAE correlated with changes in prostate volume, prostate-specific symptom scores and quality of life scores to determine whether this could provide a clinically useful end-point to predict adequate embolization. An annotated 3D rendered image from a PAE is included below.

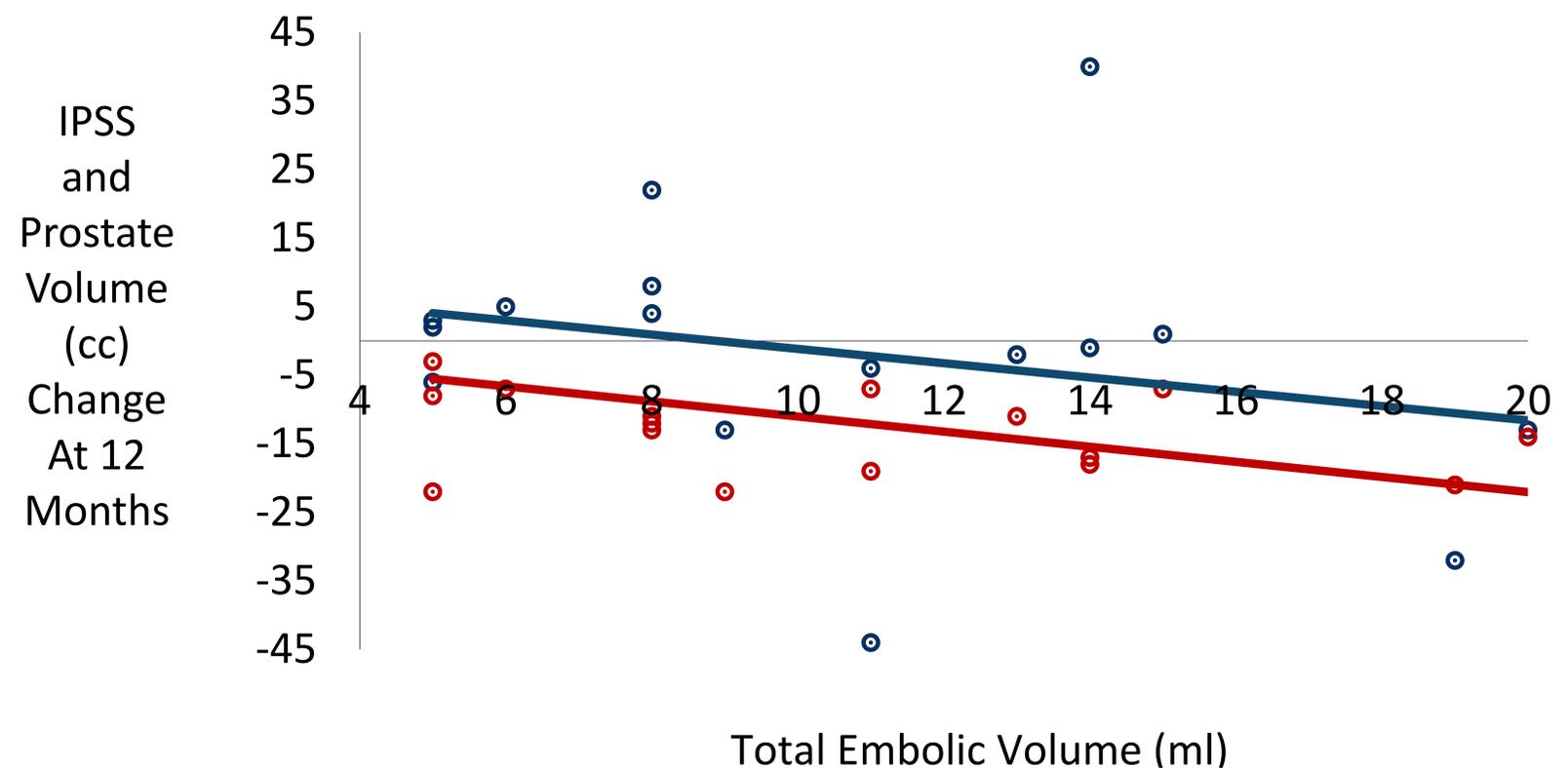


## METHODS

A retrospective analysis of data from the STREAM trial<sup>1</sup> was undertaken. Data for prostate volume, IPSS and EQ-5D-5L scores before and 12 months following PAE, along with the total volume of embolic used, for 16 patients who underwent PAE as part of the STREAM registry was gathered. All patients were embolised using the same technique and 200µm PVA or 300-500 µm Embosphere particles by the same 2 operators. Mann-Whitney U Test was used for statistical analysis.

## RESULTS

As illustrated below, total embolic volume correlated with a decrease in prostate volume (blue line;  $p < 0.01$ ) and IPSS (red line;  $p < 0.01$ ) at 12 months post PAE, which were preserved even once volume of embolic had been corrected for the pre-procedural prostate volume. There was no correlation between embolic volume and EQ5D5L (not charted;  $p = 0.42$ ) score.



## CONCLUSION

The total volume of embolic used during PAE appears to correlate with a reduction in prostate volume and the clinically important IPSS scores during PAE. The direct clinical implications of this are however limited at this stage due to the small sample size and retrospective nature of the study.