

# Prostatic embolization as a treatment for urinary catheter dependent patients with great benign prostatic hypertrophy

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## Purpose

To assess the efficacy and to describe the complications of prostatic embolization in patients with high comorbidity index and permanent urinary catheter due to great prostatic hypertrophy.

## Material and methods

Medical records from 23 patients, with permanent bladder catheterization, who underwent prostatic embolization, from July 2015 to October 2019, were retrospectively reviewed.

Age, Charlson comorbidity index, previous and post-embolization prostatic volume, measured by ultrasound, and subjective assessment of symptoms improvement were recorded. A CT angiography was performed in order to assess the anatomy of the prostatic arteries prior to embolization. Supraselective embolizations were performed using 400 $\mu$  embospheres.

Clinical effectiveness was determined if the patient no longer need urinary catheter 3 months after prostatic embolization.

Complications were assessed with the Clavien-Dindo classification.

## Results

PAE couldn't be performed in one patient (4%) due to tortuosity of pelvic arteries.

The median age was 83 years (64-95) and Charlson comorbidity index, adjusted by age, ranged from 3 to 11. The median prostatic volume pre-embolization was 94.5 ml. The median prostatic volume reduction was 23%. At three months, 68.1% of patients no longer needed urinary catheter. 84.6% of the patients reported improvement of their previous symptoms.

1 of 22 patients presented a technique related complication (urosepsis) and 2 more patients showed (suffered from) disorientation and exacerbation of their baseline chronic obstructive pulmonary disease.

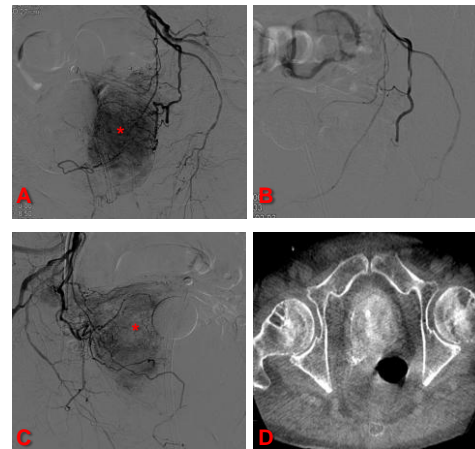


Figure: Image A, B, C and D. PAE in a 80 years-old patient that required permanent urinary catheter. Image A and C: Both IIA angiography showing the left gland blush (\* in A) and right gland blush (\* in C). Image B: Control Digital subtraction angiography (DSA) postembolization showing devascularization of left gland. Image D: Cone Beam CT after both sides embolization showing the prostate gland with rest of contrast material

## Conclusion

Prostatic embolization represents a safe and effective option for the management of patients with permanent bladder catheterization, especially in those patients with large prostates and high comorbidity index.