PAE: The Urologist's Perspective

Urologist Nicolas Thiounn, MD, PhD, talks with Marc Sapoval, MD, PhD, and discusses how prostatic artery embolization is viewed in the urology community and the cooperative role of interventional radiology.

Prof. Sapoval: As a urologist, how would you summarize your current perspective on prostatic artery embolization (PAE)?

Prof. Thiounn: Urologists are the practitioners who are responsible for the management of patients with symptomatic benign prostatic hyperplasia (BPH), and the emergence of PAE as a new nonsurgical therapeutic modality is an interesting innovation that has enriched our therapeutic offerings. PAE has allowed me to increase my patient referral thanks to good collaboration with the interventional radiology team at the hospital. In addition, many patients who have undergone PAE have been able to stop using their medication, with little or no remaining symptoms.

Prof. Sapoval: How and when did you first hear about PAE?

Prof. Thiounn: I initially heard about this new technique for prostatic bleeding from my interventional radiologist colleagues in 2012. I was struggling to treat a patient with BPH and recurrent bleeding, and open surgery was not an option because of concomitant antiplatelet therapy. I referred him for embolization and his bleeding stopped. Three months later, he reported dramatic improvement of his bothersome lower urinary tract syndrome.

Prof. Sapoval: Which patients do you refer for PAE?

Prof. Thiounn: Among the patients I treat for BPH, the patients who are most appropriate for PAE include those who are frail or want to keep their ejaculation capability. This decision is made after a thorough evaluation of their general medical condition, urinary symptoms, and prostate and bladder condition. Because this treatment has proven its effectiveness but is still not a very established treatment option, the level of information given to the patient must include the absence of follow-up data past 6 years and possibly less definitive outcomes compared to surgery. This treatment makes it possible to defer or possibly preclude the need for surgery when the criteria are met and the patient is a suitable candidate. This means that the patient understands and agrees with the information concerning this new treatment, his prostate is sufficiently voluminous to hope for an improvement, and his bladder has good contractility.

Prof. Sapoval: How do you view the clinical results to date?

Prof. Thiounn: Results with PAE are generally good when the indication is properly followed. Urodynamic test results are better after surgery, but ejaculation capability will remain after PAE, and if the bladder has a good contractility, this new treatment can be a good compromise between urinary function and sexual function.[1]

Prof. Sapoval: What do you view as the most significant unknowns that must be better understood?

Prof. Thiounn: The secret for success is to fully appreciate the condition of the bladder, especially its contractility. Bladder outlet obstruction is a complex science. Conventional surgery, because it ablates a large part of the obstructive prostate, may result in a better improvement of the urinary flow for the short term. Because one of the major goals of surgical treatment of embolization is to prevent bladder distension over time and its potential renal consequences, urologists and interventional radiologists should be fully aware that if PAE is proposed, careful monitoring of the postvoiding residue is very important, especially in patients with

some degree of preexisting bladder distension. Each case is specific and to this extent, should be fully discussed before the proposal of PAE by both the urologist and interventional radiologist.

Prof. Sapoval: When do you refer cases of failed PAE to surgery?

Prof. Thiounn: The indication for surgery in a patient with BPH after PAE is the persistence of troublesome symptoms after at least 1 to 3 months, possibly despite associated drug therapy; persistence or appearance of a significant postvoiding residue; or a complication related to BPH.

Prof. Sapoval: In your view, why are some urologists very reluctant to refer patients for PAE?

Prof. Thiounn: Prostatic diseases are the exclusive domain of urologists, and I believe this must remain so for the welfare of patients. Thus, all therapeutic indications in this field must be assessed and validated by urologists. However, urologists must constantly evolve and accept new therapies, including nonsurgical modalities that are validated for different indications on the basis of evidence-based medicine. It is therefore important that the patient then be followed by urologists after PAE.

Prof. Sapoval: What advice would you offer interventional groups that aim to work more closely with their colleagues in urology?

Prof. Thiounn: These groups must learn the pathology of the prostate, understand the ins and outs of the prostatic care given by urologists, and not seek to replace them, but rather be a possible alternative for treating these men. To ensure success, the creation of a multidisciplinary team is necessary to reassure urologists that they will keep control over therapeutic indications for these patients. If you can convince them that access to this new treatment will enrich the care they provide, they should see that this will make them more attractive to patients.

Prof. Sapoval: What would you recommend as future research topics in further exploring PAE?

Prof. Thiounn: We need to better understand the elements of the prostate that make it obstructive in urination, as volume is not the only determinant. The bladder is a major element of urination, and the assessment of its contractility is decisive in the choice of treatment. This assessment is difficult and requires further research for a relevant clinical assessment obstruction. In summary, these are topics that should be investigated both in the field of PAE and in the field of minimally invasive treatment of BPH. ■

1. Carnevale FC, Iscaife A, Yoshinaga EM, et al. Transurethral resection of the prostate (TURP) versus original and PErfecTED prostate artery embolization (PAE) due to benign prostatic hyperplasia (BPH): preliminary results of a single center, prospective, urodynamic-controlled analysis. Cardiovasc Intervent Radiol. 2016;39:44-52.

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