

MINERVA OPINION EDITORIAL

Rezum procedure with Exime[®] stent:
a step forward to micro-invasivenessLuca CINDOLO^{1,2*}, Riccardo FERRARI³, Salvatore RABITO²,
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Benign prostate hyperplasia (BPH) is a common urologic condition characterized by an age-related, progressive increase in prostatic gland size, usually coupled with a parallel increase in lower urinary tract symptoms (LUTS).¹

According to international guidelines, the management of LUTS related to BPH includes conservative management, drugs and surgical solutions. Even if the pharmacotherapy is considered one of the best and first level approaches, it can produce unsatisfactory symptom relief along with several side effects and is very frequently discontinued.²

Moreover, the surgical solution remains a mainstay treatment of BPH/LUTS as it can provide fast and quality symptom relief with a good side effect profile. Even if the transurethral resection of the prostate (TURP) is considered the gold standard treatment, the endoscopic resection and enucleation of the prostate are burdened by a well-documented and significant adverse event profile (hospital readmissions, bleeding and ejaculatory dysfunction).³

In the last 20 years, new minimally invasive surgical treatments (MISTs) (prostatic urethral lift, water vapor therapy, waterjet ablation and temporary implanted stent) have started gaining ground over conventional surgical modalities, namely TURP. These new MISTs confer

several inherent advantages, mainly preservation of sexual and ejaculatory functions, overcoming the limits of traditional surgical solutions.⁴

Johnston *et al.* have just presented their 1-year outcomes after the Rezum procedure. They collected data on consecutive patients between March 2017 and November 2018. They had a population of 210 men, with a mean age of 66 years, who underwent a Rezum procedure and have been followed at 3, 6 and 12 months. 25 of these patients were using intermittent catheterization or had an indwelling catheter.

The results, in terms of Q_{max} , PVR and IPSS Score, significantly improved. Specifically, Q_{max} changed from 9.2 mL/s at baseline to 18.1 mL/sat with 12 months of follow-up. Moreover, IPSS varied from 20.4 at the baseline, to 4.3 after 1 year. The improvements were achieved not only in the functional area, but also in the sexual one. At 12 months the IIEF-5 Score improved from 15.2 to 20.6, there were no cases of de novo erectile dysfunction and the wide majority of the patients were satisfied/very satisfied and would undergo a Rezum treatment again.⁵

In addition, the Rezum thermal therapy has been successfully adopted also in catheter-dependent urinary retention secondary to benign prostatic hyperplasia. The results in this type of

patients were partially discussed by Johnston *et al.*, but in a very recent paper McVary *et al.* used the water vapor thermal therapy on 38 catheter dependent patients. Most of these patients were unsuitable for surgery. Median age was 75.5 years, median prostate volume was 58.5 cc, and the catheter dependency before the Rezum procedure was 3 months. Around 70% of patients voided spontaneously after the procedure and were catheter free after 26 days (mean failed trials without catheter 1.6). Eighteen of 26 catheter-free patients were able to discontinue their BPH pharmacotherapy. The overall success rate of 70.3% is an interesting result because it leads us to a new possibility for BPH treatment, which is changing from surgery to a conservative and minimally invasive therapy.⁶

Even if the MISTs are usually highly accepted, some of them require 7-10 days of post-op indwelling catheterization which could cause disappointment from the patient perspective and limit the overall acceptance of the procedure itself.

In order to overcome the gap between patient expectancies and the clinical need, we asked ourselves these questions: How could we be “more minimally invasive?” Is it possible to further reduce the postoperative discomfort?

Two Italian surgeons had tried to reduce the post-op discomfort of the patients, using the Exime[®] catheter (Rocamed; Munich, Germany). This particular solution is a substitute of the normal catheter that allows the patient to live a normal life without using any urine bag or catheter stopper. Indeed, Exime[®] (Rocamed) is a temporary prostatic stent which is inserted in the prostatic urethra, before the sphincter, in order to enable the patient to urinate independently.

This particular catheter allowed us to be less invasive because the standard catheterization is not needed, even for a few days, and patients start to urinate in a normal way immediately after the water vapor treatment.

In these two Italian centers 8 patients were treated with Rezum and Exime[®] (Rocamed) catheter placement. The mean age was 59 years and all of them were in treatment with pharmacotherapy (alfa-blockers), and their mean pre-

operative IPSS was 23. They were all classified as ASA 1 or 2. None of them had an indwelling catheter before the procedure. The mean volume was 61 cc and 42% of them presented a median lobe. Mean PVR was of 75 cc.

The treatment was performed as an outpatient procedure. The mean injections were 6. None of the patients have had any peri-operative complication. After the water vapor treatment, all of the 8 patients were catheterized with the Exime[®] (Rocamed) catheter. It was removed after a mean of 10 days, without AUR or complications. Overall, the patient's perception of the management was graded as excellent.

Rezum is becoming a standard procedure, with good results, for any kind of patients, and not only in terms of improving the bladder obstruction relief, but also in terms of overall sexual functions (maintained ejaculation and preserved erection).

In our experience the use of Exime[®] (Rocamed) after a Rezum treatment has proved to be safe and highly appreciated by the patients.

This combination is leading us to be more tailored by adopting a gentle and micro-invasive strategy for the surgical treatment of BPH.

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