

(TUEP), enukleace prostaty holmiovým laserem (HoLEP) nebo thuliovým laserem (ThuLEP) nebo fotoselektivní vaporizace prostaty (PVP). Jiné se zase plně neprosadily, příkladem jsou transuretrální mikrovlnná termoterapie (TUMT), transuretrální jehlová ablace (TUNA) anebo prostatické stenty.

I přes výborné operační výsledky výše uvedených desobstrukčních výkonů při léčbě BHP zůstává řada mužů, kteří je nemohou nebo nechtějí podstoupit. Mezi nejčastější důvody nemožnosti provedení operační léčby patří polymorbidita pacienta, strach z možných perioperačních a pooperačních komplikací. I proto probíhá intenzivní vývoj nových minimálně invazivních operačních technik, které by nevyžadovaly nutnost hospitalizace, anestezie, v některých případech katetrizace a současně by vedly ke snížení nebo eliminaci nežádoucích účinků standardní operační léčby BHP. Mezi tyto metody patří systém AquaBeam®, systém UroLift®, systém Rezüm®, systém TIND.

KLÍČOVÁ SLOVA

AquaBeam®, benigní zvětšení prostaty (BHP), minimálně invazivní operační metody, Rezüm®, TIND, UroLift®.

SUMMARY

Fišer L, Čermák M, Hyršíl L, Kočárek J. Minimally invasive surgical methods for the treatment of benign prostatic hyperplasia as an alternative to classic desobstructive procedures.

Since 1885 and 1886, when Belfield and Dittel performed the first transvesical prostatectomy (TVPE) described in the literature, and since 1926, when Maximilian Stern performed the first transurethral resection of the prostate (TURP), these techniques are considered the “gold standard” in surgical treatment of benign prostatic enlargement (BPH). Both surgical methods lead to a significant improvement in subjective, functional and laboratory results, namely a reduction in the International Prostate Symptom Score Questionnaire (IPSS), an increase in maximum urine flow rate (Q_{max}), a reduction in post-micturition residue volume (PMR), a reduction in prostate volume (PV)

and in some cases to reduce the value of prostate specific antigen (PSA). Nevertheless, we would find here several “defects in beauty”. The main disadvantages of the above surgical procedures include the need for hospitalization, anesthesia and bladder catheterization, plus high perioperative morbidity and possible postoperative complications such as bleeding, infections, urinary retention, urinary incontinence, urethral strictures and sexual dysfunction. Therefore, many new surgical techniques have been developed over the years to minimize these shortcomings. Some of them have entered the standard algorithm for surgical treatment of BPH, such as transurethral prostate enucleation (TUEP), prostate enucleation by holmium laser (HoLEP) or thulium laser (ThuLEP), or photoselective prostate vaporization (PVP). Others have not been fully established, such as transurethral microwave thermotherapy (TUMT), transurethral needle ablation (TUNA) and prostate stents.

Despite the excellent surgical results of the above-mentioned desobstructive procedures in the treatment of BPH, there remain a number of men who cannot or do not want to undergo them. The most common reasons for the impossibility of performing surgical treatment include the patient’s polymorbidity, fear of possible perioperative and postoperative complications. That is why there is intensive development of new minimally invasive surgical techniques that would not require hospitalization, anesthesia and catheterization and at the same time would lead to a reduction or elimination of side effects of standard surgical treatment of BPH. These methods include the AquaBeam® system, the UroLift® system, the Rezüm® system and the TIND system.

KEY WORDS

AquaBeam®, benign prostate hyperplasia (BPH), minimally invasive surgical methods, Rezüm®, TIND, UroLift®.

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