

# Recent advances in diagnosis and treatment of ejaculatory duct obstruction-better option than art—a short communication

**Keywords:** diagnosis, pregnancy, endometrium, stepwise, besides, pediatricians, family, agglutination, population, sexually, transmitted, infections, ultrasonography, resolution, infertility

## Short communication

Ejaculatory duct (ED) obstruction is a well defined cause regarding male infertility and can be corrected potentially. Diagnosis is done in only 5% of infertile men.<sup>1</sup> with the advent along with use of high resolution Trans rectal ultrasonography (TRUS), anomalies of the ED related to infertility get well documented. Despite no pathognomic findings associated with ED obstruction, diagnosis should be suspected in an infertile male with oligozoospermia or azoospermia presenting with low ejaculate volume, normal secondary sex characteristics, testes and hormonal profile, along with finding dilated seminal vesicles, midline cyst or calcifications on TRUS. Though larger prospective studies are needed. It seems that TRUS with aspiration is the most efficient method of diagnosis.<sup>2</sup> although intrusive, it remains

less invasive than vasography or seminal vesiculoscopy done earlier.<sup>3</sup> Further the latest flexible vesiculo vasoscopy (FVV) or vasoscopy techniques were also suggested to improve diagnosis and treatment of ED obstruction.<sup>4</sup> Though transurethral resection of ED (TURED) has been most published, more recent experience with antegrade endoscopic approaches are promising and also need to be considered.<sup>2</sup> Since spermatogenesis is still normal in most of these men, usually surgical sperm removal for assisted reproduction technology (ART) followed by intracytoplasmic sperm injection is possible and is mostly offered as the 1st line of managing infertility.

Although counseling of couples is done when trying to discuss management in patients having ejaculatory duct obstruction, proper endoscopic surgical management with transurethral resection of the ejaculatory ducts for correcting the underlying pathology is not performed in most of the world, in view of little experience in the surgical correction of ejaculatory duct obstruction. For most urologists, transurethral resection of the prostate for severe obstructive lower urinary tract symptoms secondary to benign prostatic hyperplasia comes very easy as that is the most common performed urologic surgery. Besides lack of experience other reason why it is not popular is the potential for significant complications that include incontinence, chronic epididymitis, persistent anejaculation, retrograde ejaculation, ejaculation of urine and rarely rectal injury. Although these complications are rare and preventable once occur can be very debilitating in an otherwise healthy young man and occurrence might lead to litigation. Thus ART is usually preferred. Also, urologists doing a large volume of transurethral resection of the enlarged prostate in view of lower urinary tract symptoms might not have experience of male infertility management and same might be true for the reproductive urologists regarding transurethral resection of the prostate. These are some important factors why very little transurethral resection of the ejaculatory ducts for obstruction, is done

even in large academic centres. Thus these couples miss the chance of correction of the underlying pathology that can land them in natural conception.

Use of holmium lasers for transurethral resection of the ejaculatory ducts has been published by different groups in literature, but Savio, et al., provided a very valuable video for those who need to learn stepwise, besides valuable points in counseling, and critical steps for safety to do the procedure without complications.<sup>5</sup> Holmium lasers use for resection of the prostate has been known for the past 2 decades.<sup>6</sup> They have advantages in safety, durability of outcomes, and can be used even in the most ant coagulated patients. Holmium lasers use is also cost effective, since it allows reusable endoscopic equipment, multiuse laser fibers and need for very short hospital stay.<sup>7</sup> These factors have made Holmium lasers very popular for prostate resection, with some workers considering that Holmium lasers enucleation of prostate is the gold standard for prostate resection.<sup>8</sup> But prostate resection enucleation of prostate needs very difficult or steep learning curve because of which they are not adopted universally. Need is early exposure during teaching years and well defined approach in teaching to overcome this problem. Similarly, use of Holmium lasers for ejaculatory duct resection, just like prostate resection, needs future studies for properly examining the outcomes, safety, durability and cost effectiveness before it gets an established treatment for male infertility. Further a risk of post operative azoospermia exists secondary to closure of ejaculatory duct path that occurs in view of the fibrosis of tissue in the path of resection in the excurrent ductal system. Hence, if patients have positive spermatozoa in the ejaculate before surgery, sperm cryopreservation multiple times should be advocated, to safeguard possibility of ART in case post operative azoospermia does result. Savio.<sup>5</sup> discusses how one can plan transurethral resection of ejaculatory duct safely using a holmium laser. Short depth of penetration of the holmium laser (0.4mm) might help in decreasing

Volume 7 Issue 1 - 2019

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**Received:** March 25, 2019 | **Published:** April 17, 2019

the risk of severe complications like rectal injury. This should inspire more urologists to build a case series and publish their experiences for confirming the role of holmium lasers in the surgical arm of reproductive urology.

## Acknowledgment

None.

## Conflicts of interest

Author declares that there are no conflicts of interest.

## References

1. Modgil V, Rai S, Ralph DJ, et al. An update on the diagnosis and management of ejaculatory Duct Obstruction. *Nat Rev Urol*. 2016;13(1):13–20.
2. Avelino GJ, Lipshultz LI, Sigman M, et al. Transurethral resection of the ejaculatory ducts: etiology of obstruction and surgical treatment options. *Fertil Steril*. 2019;111(3):427–443.
3. Tang SX, Zhou HL, Ding YL. Effectiveness of transurethral seminal vesiculoscopy in the treatment of persistent haematospermia, and oligoasthenozoospermia and azoospermia from Ejaculatory duct obstruction. *Zhonghua Yi Xue Za Zhi*. 2016;96(36):2872–2875.
4. Li Z, Li XP, Chen HX. Diagnosis and treatment of ejaculatory duct obstruction: Current Status and advances. *Zhonghua Nan Ke Xue*. 2017;23(6):483–487.
5. Salvio LS, Carrasquillo RJ, Dubin JM, et al. Transurethral ablation of a prostatic utricle cyst with the use of holmium laser. *Fertil Steril*. 2018;110(7):1410–1411.
6. Moody JA, Lingemann JE. Holmium laser with tissue morcellation: initial United States experience. *J Endourol*. 2000;14(2):219–223.
7. Large T, Krambeck AE. Evidence backed outcomes of holmium laser enucleation of the prostate. *Curr Opin Urol*. 2018;28(3):301–308.
8. Michalak J, Tzou D, Funk J, Ho LEP: the gold standard for the surgical management of BPH in the 21<sup>st</sup> century. *Am J Clin Exp Urol*. 2015;3(1):36–42.