EDITORIAL

MANAGEMENT OF RETROGRADE EJACULATION

Retrograde ejaculation refers to the entry of the semen into the bladder instead of going out through the urethra during ejaculation.

Signs and symptoms include dry orgasms, urine which is cloudy after orgasms and male infertility. Patients experience a normal or decrease in orgasmic sensation except in paraplegia.

It is usually complete and rarely partial,the latter must not be confused with the secretion of the bulbourethral glands.

Etiology could be neurogenic (spinal cord injury, autonomic neuropathy as in diabetes, multiple sclerosis, retroperitoneal lymphadenectomy,colorectal and anal surgery), urethral obstruction (urethral strictures, valves), pharmacological (antihypertensives α-1 receptors blockers, antipsychotics, antidepressants), bladder neck incompetence (congenital defects of hemitrigon, bladder neck resection,prostatectomy).

Semen in post ejaculatory voided urine usually confirmed the diagnosis.

The aim of treatment is to restore antegrade ejaculation by interruption of pharmacological therapy interfering with ejaculation, correction of metabolic disorders like diabetis, surgical correction of urethral pathologies and psychotherapy where indicated.

In the absence of spinal cord injury, anatomical urethral anomalies or pharmacological therapies: an attempt is made to induce antegrade ejaculation by drug treatments.

Medical management aims to increase the tone of the bladder neck preventing the retrograde flow of semen into the bladder. This can be achieved by either stimulating sympathetic activity since closure of the bladder neck is under sympathetic control or by blocking parasympathetic inputs which is responsible for bladder neck relaxation.

Drugs include ephedrine sulaphate 10-15mg, four times a day, pseudoephedrine 120mg two times a day, imipramine 25-75 mg thrice daily. Desipramine 50 mg every second day and brompheneramine maleate 8 mg twice a day.

Successes rates vary from 30-40% when above agents are used alone or in combination. Significant side effects can happen with high doses. Interestingly, few patients may also ejaculate when his bladder is full which increases bladder neck closure.

Patients in whom drug treatment is ineffective or not tolerable due to side effects, in patient with spinal cord injury and where drug inducing retrograde ejaculation cannot be interrupted – sperm collection from post ejaculatory urine for use in ART may be attempted.

Sperm retrieval is timed with partners' ovulation. Urine must be made alkaline by ingesting 1-2 gmSodi-bicarb 3-4 times daily: pH must be in the range between 7.2-7.8 immediately before ejaculation. Because osmolarity of urine deteriorates sperm motility, patient is asked to drink 500ml of water one hour before ejaculation. Urine osmolarity is rechecked after 15-20 minutes if the urine osmolarity is high. The patient is asked to drink further 200 ml of water.Once an optimal osmolarity is reached (200-300miliosml/kg) the patients is asked to have intercourse or masturbate. Within 10 minutes after ejaculation urine must be voided and centrifuged. Resulting pellet should be resuspended in Tyroid's or Ham F 10 media and immediatelyinseminated. Alternatively a catheter may be applied to bladder and 10-15 ml of Tyroid's or Ham F 10 medium is instilled.

The patient must then ejaculate and a second catheterization is performed to retrieve spermatozoa. In order to perform intrauterine insemination (IUI) sperm quality must be good otherwise couple has to undergo Invitro reproductive procedure (eg,ICSI) with fresh or cryopreserved spermatozoa.

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