

Successful Pregnancy Outcome in Retrograde Ejaculation – Interesting Case Report

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ABSTRACT

Retrograde ejaculation is a most common cause for ejaculatory dysfunction and it accounts for 0.3-2% of male infertility. It is a condition in which no or minimal antegrade ejaculate is produced although orgasm is present and all the sensations of ejaculation may be present. The common etiologies are surgical causes (Bladder neck surgery, retroperitoneal lymph node dissection surgery for testicular cancer or prostate surgery), Medications (high blood pressure, prostate enlargement and depression) and Nerve damage causes (Diabetes, multiple sclerosis, Parkinson's disease or a spinal cord injury).

In our case report, 25-years-old female presented with primary infertility with regular periods and ultrasound showed polycystic pattern of ovary. Husband semen analysis showed aspermia with history of cloudy urine. The diagnosis of retrograde ejaculation was made. The sperms collected from urine showed low count and motility and IVF with ICSI was advised. The female became pregnant in first cycle only and ultrasound showed single live fetus.

Introduction

The new reproductive technologies, such as IVF ICSI, are becoming increasingly common, enabling infertile couples to become parents and create families. One of the rare cause of male infertility is ejaculatory dysfunction i.e., retrograde ejaculation which is characterized by absent or very low semen volume. It contributes to 0.3-2% of male infertility [1]. The combination of dry orgasm and issue with fertility make the condition distressing to both patient and their partner especially when trying to conceive [2]. The process of ejaculation requires complex co-ordination and interplay between the epididymides, vasa deferentia, prostate, seminal vesicles, bladder neck and bulbourethral glands [3]. Upon ejaculation, sperm are rapidly conveyed along the vas deferens and into the urethra via the ejaculatory ducts. From there, the semen progresses in an antegrade fashion in part maintained by coaptation of the bladder neck and rhythmic contraction of the

periurethral muscles co-ordinated by a centrally mediated reflex. Any factor, which disrupts this reflex and inhibits the bladder neck (internal vesical sphincter) contraction, may lead to retrograde passage of semen into the bladder. Men with retrograde ejaculation have little to suggest a diagnosis in terms of symptoms beyond that of reduced ejaculation or dry orgasm. Post orgasm, many men will describe the passage of cloudy urine. This can be attributed to the mixing of semen in the bladder with urine. A number of men will present with fertility issues for the obvious reasons [4]. In the present case, there was a successful pregnancy in the patient after alkalinization of the urine and washing with density gradient method and subsequently using it for ICSI.

Case Report

A 25 years old female came to our OPD with primary infertility. We had advised the hormonal profile and the ultrasound pelvis. Serum

hormonal measurements were AMH: 10.95 ng/ml, Prolactin: 8.7 ng/ml, thyroid stimulating: 1.6 pg/ml. Ultrasound showed bilateral poly-cystic ovaries with normal uterus. The husband's semen analysis showed Aspermia, with normal hormonal profiles FSH- 8.0 IU/ml, LH- 6.5 IU/ml, Total Testosterone 450 ng/dL, Prolactin- 4.0 ng/ml, TSH- 2.6 pg/ml. USG scrotum with Doppler showed normal study. Urine analysis was done and showed a count of 12mill/ml and 20% rapid progressive motility. They were diagnosed as a case of Retrograde Ejaculation.

In view of the above diagnosis, we recommended IVF with ICSI to the couple. As PCO was diagnosed, we stimulated her ovaries with FSH 150 (hpHMG, Menopur; Ferring GmbH, Germany). After 11 days of stimulation, transabdominal scan showed 26-28 good follicles of 14mm size in both ovaries. After that daily subcutaneous injection of GnRH antagonist, 0.25 mg Cetorelix (Cetrotide, Merck Serono S.p.A, Italy), were added from day 9 to 11. When follicles reached 18 mm, Lupride 1mg (rhCG, Ovitrelle; Merck Serono S.p.A, Italy) was given to trigger ovulation.

Transvaginal oocyte aspiration was performed before 36 hrs, under ultrasound guidance, using Wallace OPU needle and Cooks gamete buffer media. We retrieved 24 oocytes from both ovaries. The husband was advised to take alkaline solution 3 days prior to egg collection, (pH was monitored daily) and was advised to masturbate after half emptying the bladder and then collect the urine sample. The urine sample was washed with density gradient method to retrieve the sperms which showed a sperm count of 12 mill/ml and 15% progressive motile. Oocytes were denuded and Intra Cytoplasmic Sperm Injection (ICSI) was performed in the laboratory in Cooks gamete media, in 22 mature oocytes. Embryos were further cultured in cleavage media. Twenty good embryos (15 grade A and 5 grade AB) were formed and were cryo-preserved in five straws on day 3, in view of OHSS.

FET preparation

GnRH agonist 0.5 mg Inj. Leuprolide Acetate (Lupride, Inca Sun Pharmaceutical Industries Ltd.) was started one week post egg collection and reduced to half dose (0.25 mg) on day 2 of next cycle along with addition of 6 mg estradiol valerate (Progynova, Zydus Cadila Healthcare Ltd., German Remedies) in divided doses. Transvaginal sonography for endometrial thickness was done on

day 12 that was 8.8mm. GnRH agonist injection was stopped after the trigger injection of the patient and Tablet estradiol valerate was continued in the same dose. Progesterone suppositories 200 mg (Naturingest, Zydus Cadila Healthcare Ltd., German Remedies) twice daily were started. One straw of embryos were thawed on the embryo transfer day, Three Day 3 Embryos were transferred in the patient. After 14 days of luteal support, beta HCG was done which came positive. Ultrasound was done after 2 weeks of beta HCG that showed intrauterine single live pregnancy of 6 weeks.

Discussion

Infertility has been the major concern of patients with ejaculatory disorders resulting in aspermia [5]. A dry ejaculate (aspermia), may occur either because of an inability to transport semen (anejaculation) or because of an inability to ejaculate in an antegrade direction (retrograde ejaculation). The treatment of aspermia varies with underlying etiology and includes medical therapy with sympathomimetics, urinary sperm retrieval, bladder neck reconstruction, prostatic massage, penile vibratory stimulation, electroejaculation, and surgical sperm retrieval [6]. Management needs to be tailored to the individual patient, and the partner's fertility status needs to be fully assessed beforehand and taken into account [1].

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