**AB28. Management of male factor infertility: present on the assisted reproductive technology**

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**Abstract:** Infertility is a common yet complex problem affecting approximately 10-15% of couples attempting to conceive a baby. Especially, 40-50% of these factors are known as male-related disorders. Unlike female infertility, the cause of which is often easily identified, diagnosing male factors can be difficult. Male infertility is due to low sperm production, abnormal sperm function or blockages of sperm transport.

Classical semen analysis in laboratory, which include sperm concentration, motility and morphology gives an approximate evaluation of the functional competence of spermatozoa, but does not always reflect the quality of sperm DNA. The fertilizing potential of sperm depends not only on the functional competence of spermatozoa but also on sperm DNA integrity. The most commonly used techniques to assess sperm DNA integrity are the TUNEL assay, Comet assay, SCSA assay and halo sperm assay. Recent studies have highlighted the significance of sperm DNA integrity as an important factor which affects functional competence of the sperm. Sperm DNA damage has been closely associated with numerous indicators of reproductive health including fertilization, embryo quality, implantation, spontaneous abortion, congenital malformations.

To overcome male infertility, there are variety of surgical and non-surgical urological procedures and medical-pharmacological interventions, and advanced assisted reproductive technologies (ART). Among the surgically retrieved methods, there are TESE, TFNA, PESA and MESA that is used with ICSI.

The ART, augmented with ICSI in moderate to severe cases, efficiently treat a variety of male infertility disorders by constituting validated and successfully treatment methods. Also, this technique is employed because the limited numbers and functional capacity of motile sperm that can be obtained. Especially, there are technologies such as IMSI and PICSI that are used to select healthy sperms.

**Keywords:** Male factor infertility; DNA integrity; TUNEL assay

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Objective: To introduce our experience in diagnosing and treating two types of rare erectile dysfunction (ED).

Subjects and methods: Type 1: three patients of 20 years old, complicated ED due to instability of the penile base. Physical examination explored slim penile base and penis. Nocturnal penile tumescence (NPT) showed several erectile episodes with the hardness reaching 80-100%. Intracavernous injection (ICI) induced 3-4 grade erectile hardness, but the penis could not keep stable and lose the capacity to penetrate into vagina.

Surgery methods: The key point was to strengthen the suspensory ligament of the penis. We made an incision at penile base, and separated the tissue to explore corpora cavernosa. Then we stitched dorsal corpora cavernosa with pubic bone, and suture corpora cavernosa side by side to the pubic arch. Type 2: two cases of 20 years old, complicated ED due to their penis being excessive dorsiflexion. They had to pull their penis towards the abdomen to reach a suitable angle for coitus, but resulting in pain.

Surgery methods: We made an incision below the pubic bone, separated the tissue and explored the penile suspensory ligament, and then cut the penile shallow suspensory ligament and part of deep suspensory ligament.

Results: Three cases of type 1 obtained a good stability of penile base, and had satisfied sexual life without the help of hands. Two cases of type 2 obtained penis erectile angle greater than 90° and had satisfied sexual life.

Conclusions: Besides vascular and nervous factors, other important factors including the stability of the penis base or erectile angle should be considered when diagnosing ED. They could not be distinguished by NPT or other special examinations. Throughly physical examination and comparison analysis helped doctors to reach a correct diagnosis.

Keywords: Erectile dysfunction; nocturnal penile tumescence (NPT); intracavernous injection (ICI)

AB30. Effects of varicocele on male infertility

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Abstract: Varicoceles are an abnormal dilation of the pampiniform plexus of veins within the scrotum. Varicoceles are highly prevalent and can result in a myriad of deleterious effects on male reproduction. Numerous therapeutic options are available for correcting varicoceles, including surgical varicocelectomy radiographic venous embolization. The current literature is reviewed in an effort to answer the questions that varicocelectomy is really beneficial in the treatment of male factor infertility. Based upon the analysis, conclusions can be drawn that varicocele may cause any variation of severity in spermogram including azoospermia. The treatment of varicocele may significantly improve spermatogenesis and renew sperm production. Adequate treatment may spare the need for TESE as preparation for ICSI in >30% of azoospermic patients. Since achievement of pregnancy in IVF units is higher when spermatogenesis is better, the treatment of varicocele is an effective medical adjunct for IVF units prior to the treatment. In men with spermatogenic failure, freshly ejaculated sperm are easier to use, and fertilization ability in ICSI is higher with normal semen than with sperm retrieved by TESE. For bilateral clinical varicoceles, microsurgical repair is a favourable option for treating couples with male factor infertility.

Keywords: Varicocele; male infertility; ICSI

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