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Clinical Approach for Management of Male Infertility in Korea

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In regard to male infertility treatments in Korea, after the introduction of in vitro fertilization (IVF) in the 1985, the possibility of the medical solution of the incurable infertility caused by male infertility factors became feasible, and upon the generalization of the intracytoplasmic sperm injection (ICSI) in the mid-1990s, the medical outcome of the recovery of fertilization became more remarkable. However, due to the spread of assisted reproductive technologies that require high level techniques as well as high costs, the diagnosis and treatment of male infertility, in other words, the problem that the universal purpose of medicine to seek natural pregnancy by correcting the causative factor of infertility and the approach have been slurried over was produced. If the causative problem of infertility were determined to be male factors of which fundamental treatment is feasible, prior to assisted reproductive technology, cause-specific treatments should be administered exclusively. In regard to drug treatments, not only specific medical treatments for the causative disease but also as an adjuvant therapy prior to and after a primary treatment such as surgery, non-specific empirical drug treatments may be attempted for more than minimum 3 months.

With the introduction of microsurgery, development of surgical skills, and the accumulation of the experience of infertility specialists, the outcome of surgical therapy is best among the treatment methods for male infertility. Particularly, in patients for whom surgical correction is feasible such as the cases desiring pregnancy after vasectomy, the cases of obstructive azoospermia caused by the obstruction of epididymal tubule or ejaculatory duct, etc., after surgical treatments, the probability of achieving natural pregnancy is superior to 25—30% pregnancy rate of assisted reproductive technologies. In addition, after surgery, even if natural pregnancy were failed, assisted reproductive technologies using sperms within the ejaculate collected by the corrected patency of the seminal tract is possible, and thus efforts to diagnose operable diseases of male infertility and to treat them are required more.

Only in obstructive azoospermia that surgical correction is impossible and azoospermia patients due to the congenital bilateral absence of the vas deferens, sperms could be collected by the microsurgical or percutaneous epididymal sperm aspiration, and in the total obstruction of the epididymis, the agenesis, or the cases received epididymectomy, sperms could be collected by the testicular sperm aspiration, which may be attempted ICSI. Finally, for the most intractable male factor like non-obstructive azoospermia patients, it is important to determine prior to assisted reproductive technologies whether sperms with the healthy haploid nuclear pattern completed meiosis within the testicle or the spermatid could be obtained.

In conclusion, for the ideal treatment of male infertility, it is very important to determine by early evaluation of male factors (1) whether cause-specific treatments for the male infertility is possible, (2) if the fundamental treatment were not possible, whether the condition is suitable to assisted reproductive technologies using the patient's sperm, (3) whether the condition is that the solution is not possible by assisted reproductive technologies, hence, it is required to consider the non-spouse donor insemination or adoption.