

## 남서불임의 약물치료

## Medical Treatment of Infertile Males

1 10

---

Ju Tae Seo, M.D.

Department of Urology

Sungkyunkwan University School of Medicine

---

Samsung Cheil Hospital

E-mail : itand.seo@samsung.com

## Abstract

Previously, pharmacologic treatment was empirically and often irrationally for infertile males. As a result of the technological advance provided by intracytoplasmic sperm injection (ICSI) in 1992, the evaluation and treatment of the infertile male has changed significantly. Many men who were previously thought to be irreversibly infertile have the potential to initiate their own biologic pregnancy. However, not all men having impaired semen parameter are ideal candidates for ICSI for numerous reasons including a lack of addressing the underlying problem causing the male infertility, unknown genetic consequences, and cost - effectiveness issues. If pharmacologic therapy is going to be used, it should be employed for a 3 - to 6 - month period so that at least one full spermatogenetic cycle will be incorporated. Advances in pharmacological and hormonal research in the area of male reproduction and improved methods of reproductive technologies may be combined with medical therapy to improve a couple's fertility outcome.

**Keywords:** Specific medical therapy;

#### Nonspecific empirical medical therapy

25% ( , , , , ), Laure-

nce - Moon - Bardet - Biedl ( ,

, ), Kallmann ( ,

가 가

(GnRH, gonadotrophin - releasing hormone)

1

(specific medical therapy)

## 2) Hyperprolactinemia

(nonspecific empirical medical

therapy)

74

GnRH 가 , LH가 Leydig

10 ~ 14

3 ~ 6

(1, 2)-phenothiazine

### 3) Congenital Adrenal Hyperplasia

CAH

CAH 2

21 - hydroxylase cortisol

ACTH 7

(2)

### hydroxyprogesterone

### pregnenetriol      가

가

1

### 1) Hypogonadotropic Hypogonadism

1%

#### 4) Anabolic Steroid Abuse

가 가

Prader - Willi

WHO

가  $1 \times 10^6/\text{ml}$

가

3

,

가

4)

(3).

0.6%

thyroxin

가

5)

swim - up density

gradient

(2).

aromatase

가 가 T/E<sub>2</sub> 가 aro-

3. Antisperm Antibodies

matase inhibitor testolactone(Teslac, Bristol -  
Meyers Squibb) 50~100mg 2 anastro-  
azole(Arimidex, AstraZeneca) 1mg 1

가

cyclosporin

가

clomiphene citrate

40% 가 가

,

2. (Pyospermia) 6~50%, cyclosporin 33%

가 가

6

가

10~20%

(re-

active oxygen species, ROS) (1, 2).

4. Retrograde Ejaculation

30%

5~66%

haloperidol, phenoxybenzamine, terazocin, tamsulosin

liothyronine(Cytomel), gen, zinc, vitamin C

androgen, 가

가

가

가 (2).

1~2g

polycitra 5ml

1) Clomiphene Citrate

1 Clomiphene citrate diethylstilbestrol

가

가

BWW/Ham's Clomiphene citrate

F - 10/HTF

Ringer's lactate

(2).

가 GnRH, FSH LH

1. Idiopathic Oligozoospermia

가 0~78% 0~70%,

0~58%

가 (4).

가

2) Tamoxifen

Tamoxifen citrate

clomiphene citrate

가 가

가

가 11~100%

2. Antioxidants

, 11~40%

25~40%,

가

90%

(reactive oxygen species)가

가

### 3) Testolactone

. Aromatase

estradiol

LH FSH

$\alpha$  - tocopherol

ascorbic acid

, glu-

가 가

가

tathione, selenium, rebamipide

가

anastrazole(Arimidex, Astra -

가 가

Zeneca) 1mg

1

testolactone(Teslac)

가

(1).

100mg~2g

. Testolactone

56~89%

3. Cartinine

22~33%

L - carnitine acetylcarnitine

Anastrazole

(Testosterone / Estradiol)가

가

(5).

L - carnitine

2,000

### 4) Testerone Rebound

10

가 acetylcarnitine

L - carnitine

2~3g

acetylcarnitine 4g

(2).

4

rebound

4~8%

1950

(6).

specific empirical medical therapy) .  
74  
10 ~ 14  
3

- ,  
(non-  
specific empirical medical therapy)
- 74  
10 ~ 14  
3
1. Hakim LS, Oates RD. Nonsurgical treatment of male infertility : .  
2. Kim ED, Lipshultz LI, Howards SS. Male infertility. In : Gillenwater JY, Greyhack JT, Howards SS, Mitchell ME, editors. Adult and Pediatric Urology. Philadelphia : Lippincott Williams & Wilkins, 1683 - 757  
3. McClure RD. Male Infertility : Male infertility. In : Tanagho EA, McAninch JW, editors. Smith's General Urology. 14th ed. Norwalk : Appleton & Lange, 1995 : 745 - 71  
4. Mellinger RC, Thomson RJ. The effect of clomiphene citrate in male infertility. *Fertil Steril* 1966 ; 17 : 94 - 103  
5. Schwarzstein L, Aparicio NJ, Schally AV. D - Tryptophan - 6 - luteinizing hormone - releasing hormone in the treatment of normogonadotropic oligoasthenozoospermia. *Int J Androl* 1982 ; 5 : 171 - 8  
6. Vigersky RA, Glass AR. Effect of delta - testosterone on the pituitary - testicular axis in oligospermic men. *J Clin Endocrinol Metab* 1981 ; 52 : 897 - 902

11 ( )

1. 6.  
2. 7.  
3. 8.  
4. 9.  
5. 10.