

Medical therapy in male infertility

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Dr. Behrang Aabdpour

Treatment of male infertility

- I. Life style changes
- II. Medical treatment
- III. Surgical treatment
- IV. ART

- If it is considered, it should be used at least 3-6 months
- If there is any need for rapid response, ART also should be used concomitant with medications

General tips for prevention of infertility:

- Childbearing in lower ages
- Optimum body weight
- Avoidance of tobacco, alcohol and ...
- Caution in using medications and managing methods of other systems diseases
- Education of male individuals and families about special conditions such as testicular torsion and trauma
- Occupational points
- Surgical repair of UDT between age of 6-12 months

- All infertile men should undergo a comprehensive urological assessment to identify and treat any modifiable risk factor.
- Additionally increasing data indicate that infertile men are at higher risk of cardiovascular mortality and of developing cancers and should be screened and counselled accordingly.

- The majority of male infertility is idiopathic, however, there are multiple known causes of male infertility and some of these causes can be treated medically with high success rates.

The causes of male infertility that their treatment primarily and mainly are medical:

- 1) Disorders of sperm transport due to failure of emission or ejaculation (non-anatomic type)
- 2) Infections of GU system(including any inflammatory process of these organs)
- 3) Secondary testicular failure (Hypogonadotropic-Hypogonadism) including:
 - ✓ Failure of GnRH secretion from hypothalamus
 - ✓ Pan hypopituitarism
 - ✓ Isolated FSH or LH deficiency
 - ✓ Both FSH and LH deficiency
 - ✓ Exogenic androgen induced infertility

Failure of ejaculation or emission

❖ Anatomic

❖ Non-Anatomic

Medical treatment may be effective only in non-anatomic type

- Alpha- adrenergic drugs
 - ✓ Pseudo ephedrine- phenyl propanol amine – imipramine
 - ✓ At least 2 weeks
 - ✓ Maximum 3 weeks

Infections of GU system

- Mainstay of treatment is antibiotics and anti-inflammatory medications
- Pyospermia:
 - ✓ Antibiotic
 - ✓ NSAIDs
 - ✓ Anti histamine
 - ✓ Anti oxidants

Secondary testicular failure

- The treatment is based on replacement of deficient hormone

Idiopathic male subfertility

- In this situation the medical therapy is mainly empirical
 - ✓ Gonadotropins
 - ✓ Antiestrogens
 - ✓ aromatase inhibitors
 - ✓ Antioxidants

Medical therapy as an adjuvant therapy after varicocelectomy

- It is not approved to be effective in improvement of results but many investigators believe that it has beneficial effects on semen parameters, pregnancy rate and shortening the time of achieving positive results after surgery.
 - ✓ Gonadotropins
 - ✓ Antiestrogens
 - ✓ Antioxidants

Is pretreatment for male partner necessary before ART?

- Antioxidants
- Recombinant human FSH

Drug groups

1. Androgens
2. Gonadotropins
3. Gonadotropin-Releasing Hormone
4. Anti-estrogens
5. Testolactone (aromatase inhibitor)
6. Anastrozole (aromatase inhibitor)
7. Mesterolone (a synthetic androgen)
8. Antibiotics
9. Steroids

10. Alpha-agonists
11. Anti histamines
12. NSAIDs
13. Carnitine
14. Vitamins (A-C-E) and folic acid
15. Co-Q10
16. zinc and selenium
17. Arginine
18. Pentoxifylline
19. sildenafil