여성 불임증

Female Infertility

.

.

650 - 9

Tae Ki Yoon, M.D.· Nae Young Youn, M.D.

Department of Obstetrics and Gynecology· Infertility Medical Center

Pochun Cha University College of Medicine

Kang nam Cha Hospital

E mail : tkyoon@cha.ac.kr· ynaey@hanmail.net

Abstract

Infertility is a disease that exists when a couple has tried to conceive for 12 months during which time they have had intercourse without the use of contraception. The fecundability of a normal couple in one cycle has been estimated at 20% to 25%. On the basis of this estimate, about 85% of couples should conceive after 12 months of unprotected intercourse. Infertility affects about 13.5% of reproductive couples in Korea. Earlier evaluation and treatment is required in women with age over 35 years and some medical conditions. Both partners should be evaluated at the same time. The use of a standard infertility treatment algorithm results in a higher pregnancy rate and lower cost and therefore should be the preferred treatment approach. IVF ET and tubal surgery must be considered to be complementary rather than competitive procedures. Adequate selection of patients is crucial to find the best therapeutic approach.

Keywords : Infertility; IVF ET; Tubal surgery;
                Cost effectiveness

          :   ;   ;   ;

12

.

1   85%

.   10~ 15%

,

,

,

.

13.5%   . 2000

15~ 44

6, 799, 095   (, 2001)   1, 400, 614

(1).

,   .

```
                    ┌─────────────────────────────────┐
                    │   Infertility one year or longer │
                    └─────────────────────────────────┘
                    ┌─────────────────────────────────┐
                    │ Initial evaluation, history, physical exam │
                    └─────────────────────────────────┘
```

Irregular menses No ovulation by tests	HSG • Unilateral or bilateral tubal blockage	Normal evaluation • History • Physical exam • Ovulation tests • HSG	HSG or hysteroscopy • Structural abnormality of the endometrial cavity	Abnormal semen analysis
Anovulation	Tubal factor	Unexplained infertility ± endometriosis	Uterine factor	Male fator

• Counseling
  Phychosocial support
• If multiple factor present, investigate and manage concurrently

1.

(body
mass index)   ,

,

,   ,   ,   ,   ,   ,

,   .   ,   ,   ,

,   (Cul de

,   ,   ,   sac)   .

,   ,   ,

,   ,   ,

,   ,   (1).

,   ,

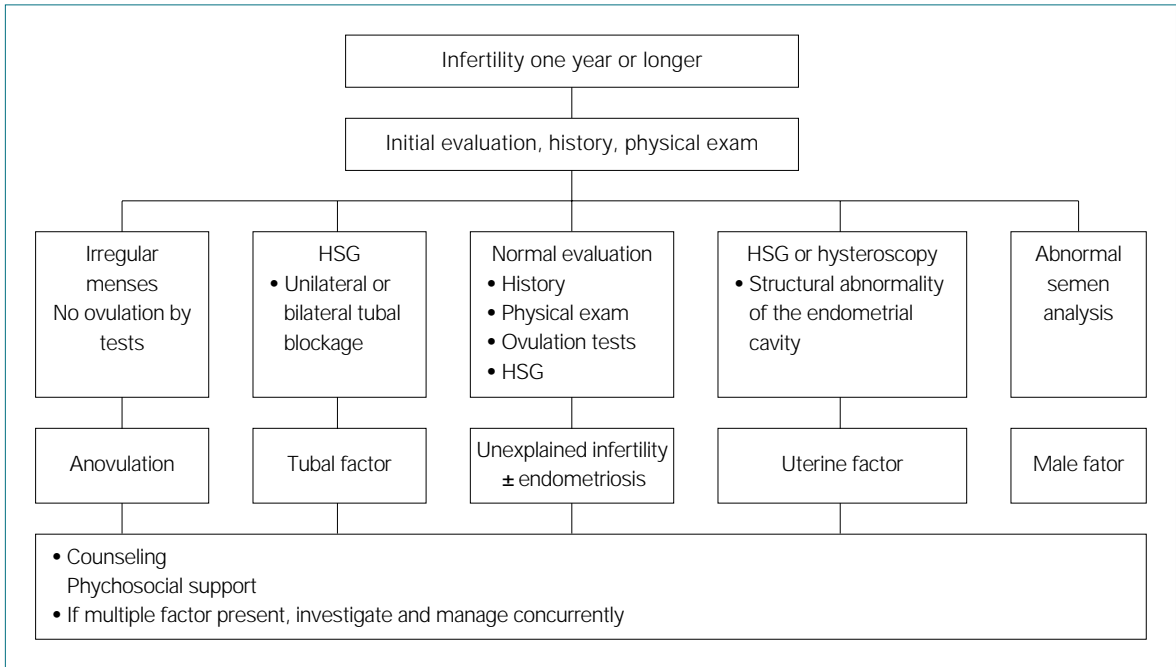,   ,   ,   ,   **1.   (Ovulatory Factor)**

,   (galatorrhea),   ,   30~ 40%

                                              (2).   ,

.

,

.   (5).

,   ,   ,

,   .   4)   (Serial Transvaginal Ultrasound)

,

.   ,   col-

lapse,   ,

.   (cul de sac)   .

1)   (Basal Body Temperature)   .

.

(biphasic)   .

(monophasic)   (FSH)

.   (ovarian failure)

.

.   (ovarian reserve)

3   ,

2)   (Serum Progesterone)   (6).

3.0 ng/ml

(3).   3~ 6

10 ng/ml

(4).   .

3)   (Endometrial Biopsy)   2.   (Cervical Factor)

5%   .

`⁄

.   (endometrial dating)   ,   .

2   , 2

,   .   ,

.   /   (pelvic/
,   ,   adnexal adhesion)

(7).   .

3.   (Urerine Factor)   1)
                                   ,
        5~10%   .   .
                       .   /
                                                                              .

    1)   (Hysterosalpingography)
                                   ,   2)
                       .

    (sonohysterography)   .   ,
                   .   /
               ,
               (8).
                                                          .

    2)

               ,   ,   ,   .
                       (9).

                                        5.

    3)

                                                        5~20%   .

        .

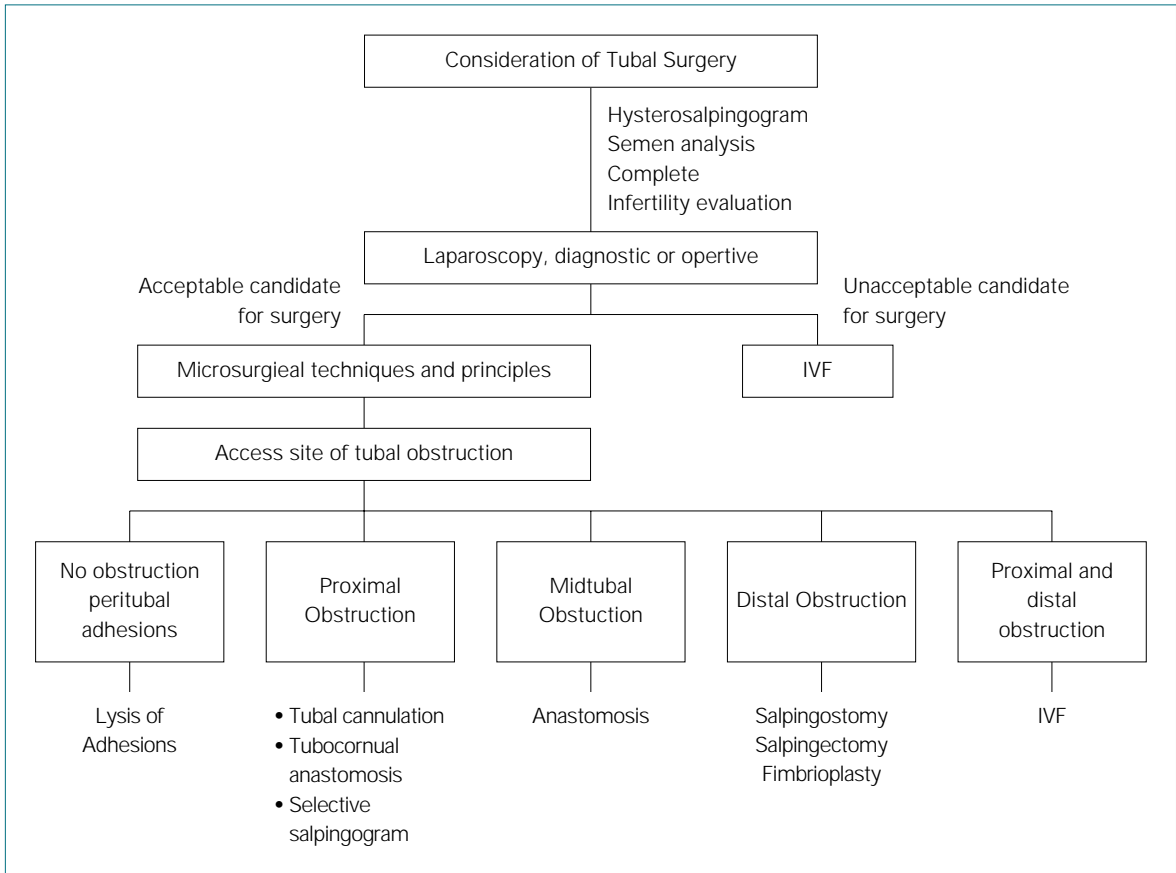4.   (Tubal / Peritoneal Factor)
        30~40%   .   .

(IUI)

1.   ,

                                                                                              .

                                                                    3~ 4

                          .

                                                              .

80~ 85%   40%   .

                                                    3.

              .

                                                        .

              .

                                              (ovarian   .

drilling)   .   ,

          insulin sensitizer   metformin   .

                                                              .

  (10).   10%

2.

                          ,   .

                    .   4.

              .

                                                    ,

                                                                    .

    .

Consideration of Tubal Surgery

Hysterosalpingogram
Semen analysis
Complete
Infertility evaluation

Laparoscopy, diagnostic or opertive

Acceptable candidate
for surgery

Unacceptable candidate
for surgery

Microsurgieal techniques and principles

IVF

Access site of tubal obstruction

No obstruction peritubal adhesions	Proximal Obstruction	Midtubal Obstuction	Distal Obstruction	Proximal and distal obstruction

Lysis of
Adhesions

- Tubal cannulation
- Tubocornual anastomosis
- Selective salpingogram

Anastomosis

Salpingostomy
Salpingectomy
Fimbrioplasty

IVF

2.

,   ,   ,

(11).   (15),

.

,   ,

,   ,

(12, 13).   ,

84.9%

(14).   (2).

,

,   .   5.

robot

,

,   .   ,

.

.

.

.

6. (Unexplained Infertility)

,

(16).   50~60%

3   .

.   ,

.   ,

.

.

.

,

(First line)

(17).

,   ,   ,

,   .   .

,

,   2

.   .

,   35   ,

,

,   ,

.

.`⊕

1.   ,   ,   ,   .

.

. 2003 ; 1

2. Mosher WD, Pratt WF. Fecundity and infertility in the United States : incidence and trends. Fertil Steril 1991 ; 56 : 192 - 3

3. Wathen NC, Perry L, Lilford RJ, Chard T. Interpretation of single progesterone measurement in diagnosis of anovulation and defective luteal phase : observations on analysis of the normal range. Br Med J 1984 ; 288 : 7 - 9

4. Jordan J, Craig K, Clifton DK, Soules MR. Luteal phase defect : the sensitivity and specificity of diagnostic methods in common clinical use. Fertil Steril 1994 ; 62 : 54 - 62

5. Batista MC, Cartledge TP, Merino MJ, Axiotis C, Platia MP, Nieman LK, et al. Midluteal phase endometrial biopsy does not accurately predict luteal function. Fertil Steil 1993 ; 59 : 294 - 300

6. Sharara FI, Scott Jr RT, Seifer DB. The detection of diminished ovarian reserve in infertile women. Am J Obstet Gynecol 1998 ; 179 : 804 - 12

7. Glatstein IZ, Harlow BL, Hornstein MD. Practice patterns among reproductive endocrinologists : further aspects of the infertility evaluation. Fertil Steril 1998 ; 70 : 263 - 9

8. Schwarzler P, Concin H, Bosch H, Berlinger A, Wohlgenannt K, Bourne TH, et al. An evaluation of sonohysterography and diagnostic hysteroscopy for the assessment of intrauterine pathology. Ultrasound Obstet Gynecol 1998 ; 11 : 337 - 42

9. Ualdi F, Wisanto A, Camus M, Tournaye H, Clasen K, Devroey P. The role of transvaginal ultrasonography in the detection of pelvic pathologies in the infertility workup. Hum reprod 1998 ; 13 : 330 - 3

10. Imran Pirwany, Togas Tulandi. Laparoscopic treatment of polycystic Ovaries : is it time to relinquish the pro edure? Fertility and Sterility 2003 ; 80 : 241 - 51

11. C. Posaci, M. Camus, K. Osmanagaoglu, P. Devroey. Tubal surgery in the era of assisted reproductive technology : clinical options. Human Reproduction 1999 ; 14 : 120 - 36

12. Puttemans P, Campo R, Gordts S, Brosens I. Hydrosalpinx-functional surgery or salpingectomy? Hum Reprod 2000 ; 15 : 1427 - 30

13. Johnson NP, Mak W, Sowter MC. Laparoscopic salpingectomy for women with hydrosalpinges enhances the success of IVF. Hum Reprod 2002 ; 17 : 543 - 8

14. Yoon TK, Sung HR, Kang HG, Cha SH, Lee CN, Cha KY. Laparoscopic tubal anastomosis : fertility outcome in 202 cases. Fertil Steril 1999 ; 72 : 1121 - 6

15. Goldberg JM, Falcone T. Laparoscopic microsurgical tubal anastomosis with and without robotic assistance. Hum Reprod 2003 ; 18 : 145 - 7

16. Fatum M, Laufer N, Simon A. Should diagnostic laparoscopy be performed after normal hysterosalpingography in treating infertility suspected to be of unknown origin? Hum Reprod 2002 ; 17 : 1 - 3

17. Vishvanath C, Karande, Alan Korn, Randy Morris, Ramaa Rao, Norbert Gleicher, et al. Prospective randomized trial comparing the outcome and cost of in vitro fertilization with that of a traditional treatment algorithm as first line therapy for couples with infertility. Fertility and Sterility 1999 ; 71 : 468 - 75