



*Material
and
Methods*



The present study was carried out in the Department of Obstetrics and Gynaecology of Maharani Laxmi Bai, Medical College, Jhansi in one year period since 1st Sep 2003 to 31st August 2004.

Criteria for Selection of Patients

1. Complaint of infertility
2. Patients in age group 20-35 years.
3. Met the criteria for WHO Group II ovulatory disorder:
 - (i) oligomenorrhae/ amenorrhae
 - (ii) Evidence of endogenous estrogen production
 - (iii) Normal prolactin level
 - (iv) Normal FSH
4. Patients resistant to clomiphene citrate standard regimen i. e. fail to ovulate after treatment with clomiphene citrate in doses of 150 mg/day for 5 day/cycle.

All the selected patients subjected. to detailed history, general, systemic and pelvic examination.

History

Name

Address

W/o

F/L

House No.

Colony

City

Village

Post/Thana

Distt.

Age:

Wife

Husband

Occupation & Income: Wife Husband

Marital status: Married for years

Type of infertility: Primary/Secondary

Gynaecological History

-Menarche

-Menstrual cycle

- Duration of period

- Past

- Present

- Cycle Flow

- Dysmenorrhoea

-Last menstrual period

Obstetrical history

- Parity

- Abortion/MTP/D&C

Medical History

History of tuberculosis, urinary tract infection, pelvic infection, sexually transmitted disease, liver or heart disease, endocrinological disorders, drug allergy, diabetes, hypertension, smoking, alcoholism.

Past surgical history

- Appendicectomy - Any pelvic surgery

Personal History -

Family History- any significant disease

Sexual History

. Frequency of intercourse

. Dysparunia

. Contraception:

Type

Duration

Previous Treatment for Infertility.

- Clomiphene
- Gonadotropin
- Others
- Surgical
- Examination
- General Appearance
- Pallor
- Height & Weight
- Endocrine status .
- Hair distribution
- Breast development - Discharge
- Obesity
- Pigmentation, ACNE
- .Thyroid

Gynaecological Examination

External Genitalia	-----	Labia majora
	-----	Labia minora
Per speculum	-----	Vagina :
		Cervix
Per vaginum		Cervix - direction
		Uterus - Size, Shape, Version,
		Mobility
		Adenexa: Tenderness
		Thickening
		Any mass

Investigations

- Hb%
- TLC -DLC -ESR
- Blood sugar: -Fasting
- Post parandial
- VDRL: -Husband:
- Wife

- Urine examination (Both partners):
 - Routine
 - Microscopy
 - Urine culture and sensitivity

- . Endometrial biopsy: Premenstrual or 1 st day of period.
- . Hystrosalpingography/Sonosalpingography for tubal factor
- . Diagnostic laparoscopy: For tubal and peritoneal factors (if required).
- . Base line ultrasound study
- . Husband's semen analysis
 - Volume
 - Count
 - Motility
 - Morphology
- . Testicular biopsy - If azoospermia

Endocrinological Investigations

S. FSH S. LH	2nd day of period if required
S. Estrogen S. Prolactin	
S. TSH, T3, T4	
S. Progesterone -	21 st day of period, if required

Transvaginal sonography

- Follicular monitoring -
- Endometrium
- Ovulation

base line study to know the status of ovaries and endometrium or to detect any other pelvic pathology.

Follicular monitoring was standard from 7th or 8th day of cycle daily till the evidence of ovulation seen.

During the monitoring we determine the follicular development in both ovaries, endometrial thickness and ovulation.

Follicular Development

- Number of follicles
- Rate of growth
- Mean Diameter of follicles in two dimensions
- Ovulation
- The potential signs of impending ovulation are:
 - Presence of a dominant follicle (usually more than 16-18 mm)
 - Anechoic area double contour, around the follicles (possible ovulation with in 24 hours)
 - Separation and folding of the follicle lining (ovulation within 6-10 hours)
 - hours)
- Thickened proliferative endometrium.

ENDOMETRIUM

Sakamoto described the characteristics sonographic image noted through the menstrual cycle in 1985. The proliferative endometrium is characterised by: (a) the presence of a well defined three line sign; (b) a hypoehogenic functional layer; (c) A minimal or absent posterior acoustic enhancement. The full endometrial thickness (full thickness of both layers of endometrium) was measured.