

## Different Aspects of Infertility Care: Challenge for Clinicians

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Infertility is defined as inability of a couple to achieve conception after one year of unprotected coitus. Sterility is an absolute state of inability to conceive. Secondary infertility and sterility are in the same state developing after the initial phase of fertility.

About 10-15% of marriages prove to be childless. The incidence of infertility does not appear to be increasing, but more couples are seeking advice because of increased publicity. According world fertility survey (USAID) 4% of couples in Bangladesh are infertile

### **Causes of infertility are-**

#### **In couples**

- Tubal and pelvic pathology -35%
- Male factors-35%
- Ovulatory dysfunction- 15%
- Unexplained infertility-10%
- Unusual problem- 5%

#### **In women**

- Tubal and pelvic pathology-40%
- Ovulatory dysfunction -40%
- Unexplained infertility-10%
- Unusual problems- 10%

Prevalence of infertility varies with age. Ovulatory dysfunction is more common in younger than older couples. Tubal and peritoneal factors have similar prevalence. Male factors and unexplained infertility somewhat more often in older couples.

### **Disease profile are as follows-**

Male factors are -Azoospermia, Oligospermia, Disease of testis such as-Tumors, TB, Syphilis, Sperm agglutinins and antibodies.

Female factors are-Ovarian factors- (15%) PCOS, Hypothalamic anovulation, Subclinical adrenal failure and DM Uterine Factors-Uterine absence, atrophy, Endometritis, Submucosal polyp Uterine leiomyoma, Intrauterine adhesions, Tubal factors-Partial or bilateral tubal obstruction due to post abortal, puerperal, gonococcal, chlamydial, TB. Peritoneal factors-Pelvic adhesions, endometriosis. Intrauterine

insemination (IUI)- IUI involves the collection of semen by an emission occurring other than during coitus (usually by masturbation) and its transfer into the uterus.

**Indication of IUI are-** Unexplained infertility, Cervical factor, Mild male factor, Ejaculatory failure, Immunological causes, Mild to moderate endometriosis, Male causes like Severe hypospadias, Neurological impotence, Sexual dysfunction.

### **Indication of surgeries in infertility are -**

Diagnostic purposes -Bilateral tubal block, Unilateral tubal block, Endometriosis. Therapeutic indications for surgery are- Fibroid uterus, Chocolate cyst, PCOS, Septate uterus, Transverse vaginal septum.

**Name of surgeries-** Adhesiolysis, Cystectomy, Myomectomy, Laparoscopic ovarian drilling, vaginoplasty.

In vitro fertilization encompasses the in vitro handling of gametes or embryo with the intention of achieving a pregnancy.

The process involves monitoring and stimulating a woman's ovulatory process, removing an ovum or ova from her ovaries, and letting sperm fertilize them in a culture medium in a laboratory.

A hysteroscopy is a procedure used to examine the inside of the uterus.

It is carried out using a hysteroscope, which is a narrow telescope with a light and camera at the end.

Some data analysis of infertility dept DMCH shows, Total patients in 2021 were 4933 and 2022 were 5238, which were increased in 2022 at infertility Dept of DMCH. Incidence of male factor causing infertility increased in 2022 than 2021. Most common male factor was oligospermia which is about 45%. All the female factors increased in 2022. Most common female factor causing infertility is polycystic ovary which is 27.15% in 2021 & 23 % in 2022 at infertility dept of DMCH.

Among OPD procedures 769 TVS were done in 2021 and 923 in 2022 which were about 86% of all the procedures. IN 2021, 81 IUI were done among them 11 got pregnant. And in 2022, among 84 IUI 23 patients got pregnant in 2022.

Among the indications of IUI incidence of PCOS, Endometriosis, hypothyroidism, unilateral tubal block was increased in 2022. Prevalence of male factor was most (28%) of all indications of IUI.

Fertility care encompasses the prevention, diagnosis, and treatment of infertility. Equal and equitable access to fertility care remains a challenge in most countries,

particularly in low and middle-income countries. In this era of leaving no-one behind, it is time to bring infertility out of the shadows of reproductive health research and policy.

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