

Reproductive Endocrinology and Infertility Clinic

Reproductive Endocrinology & Infertility (REI) Clinic at Etlik Zubeyde Hanim Women's Health Education and Research Hospital specializes in evaluating, diagnosing, managing and treating a wide range of disorders that are related to reproduction and reproductive endocrinology. We aim to diagnose and treat infertility that means to have difficulty in getting pregnant. Total infertility work-out for evaluation of tubal patency and uterine anomalies and diagnosis of hormonal disorders is carried out at our clinic. Hysterosalpingography, office hysteroscopy and hormonal tests and sperm tests for men are our baseline tests for evaluation of the patients with infertility problems. We also diagnose, treat and follow-up patients with bleeding disorders and problems with menstrual cycles at any age starting from the beginning of the first menstruation up to menopause. Menopause is an important phase of a woman's life that needs a special care and follow-up. We have a holistic approach to menopause and aim to help menopausal women in collaboration with psychologists, physiotherapists and dieticians. Our physicians with high academic background and clinical expertise provide high quality and individualized care to our patients. Our Department of Reproductive Endocrinology and Infertility offers comprehensive care and surgical and medical treatment options in Endometriosis, Polycystic Ovarian Syndrome (PCOS), Perimenopausal-Menopausal Therapy and Recurrent Pregnancy Loss. We also diagnose and treat gynecological conditions and their effects on patients' quality of life and reproductive abilities. These conditions are, abnormal uterine bleeding, congenital uterine anomalies, uterine fibroids, dysmenorrhea, pelvic pain and endometriosis. Our physicians also have extensive experience in endoscopic reproductive surgery. This allows our clinic to perform the majority of the gynecologic surgeries in a minimally invasive fashion. Various uterine and endometrial conditions can be treated using hysteroscopy. Ovarian conditions such as cysts such as endometriomas, ovarian masses, tubal pathologies can be treated successfully at our clinic using laparoscopic techniques.

Adolescent Care and Youth Center

Reproductive care should be handled as a lifelong process including childhood, adolescent healthcare. Early visits to a gynecologist should be a positive experience and gynecologic problems in younger women need a more sensitive care handles with a respect to privacy. Some reproductive and gynecologic disorders may begin from childhood and need evaluation and management during adolescent years. In this context we provide specialized adolescent care at our "Youth Center" including following issues; abnormal development and anomalies of the reproductive structures, ovarian Disorders, pelvic pain, Menstrual Disorders, Polycystic Ovarian Syndrome, Disorders of Sexual Differentiation. We respect to women's choice and reproductive rights that involves having children whenever they want and using methods that protect them from getting pregnant when they intend not to get pregnant. Our Family Planning Clinic aims to help women in these issues with a great respect to women's choice and privacy.

In Vitro Fertilization Clinic

Etlik Zubeyde Hanım Women's Health Education and Research Hospital In vitro Fertilization Clinic is one of the largest IVF Center in Ankara and has been providing fertility services since 2008. Around 1000 couples are accepted for IVF every year. Throughout their treatment they receive care from a team of specialists who closely coordinate to achieve optimum results. All aspects of an IVF treatment cycle are personalized to achieve the best efficacy and safety. Drugs are used on a daily basis to stimulate the ovaries, the dose of which is assigned based on the patient's ovarian reserve status, body mass index (calculated by the weight and height of the patient) and her previous response, if available. Ovarian reserve may not necessarily be correlated with chronological female age. To assess ovarian reserve, we mainly use the so-called bilateral antral follicle count, which is the number of 2-10 mm sized follicles in both ovaries. Occasionally, we additionally use the blood test, anti-müllerian hormone (AMH) for this purpose. After determining the personalized treatment plan, ovarian stimulation is commenced on the second or third day of menstruation. For this purpose daily injections of gonadotrophins are prescribed and used. Since these medications are very patient friendly to use, our patients, near exclusively self-administer these drugs following initial demo. Patients underwent a controlled ovarian stimulation according to the condition of each patient by using conventional protocols such as a flexible GnRH antagonist protocol or the GnRH agonist long protocol. In conventional protocols, recombinant FSH with or without human menopausal gonadotropin were used at doses ranging between 100 IU/day and 375 IU/day. Subjects were monitored every 2-4 days via transvaginal ultrasound (TVS) conducted by a physician, starting on day 5 of ovarian hyperstimulation, and the diameter of the ovarian follicles and the endometrial thickness were recorded. The dose of gonadotrophin was adjusted according to the ovarian response. Blood samples were taken at the time of ultrasonography and luteinizing hormone (LH), progesterone (P), and estradiol (E2) were measured until the human chorionic gonadotropin (hCG) day. When at least three follicles reached a mean diameter of ≥ 18 mm, 250 μ g of recombinant human chorionic gonadotropin or 10000 IU human chorionic gonadotropin was administered. The oocytes were retrieved around 34 to 36 hours after the hCG injection. Oocyte pick up (OPU) procedure is performed under light general anesthesia and it lasts 10 to 15 minutes. Follicles growing in both ovaries are aspirated by a needle with trans-vaginal ultrasonographic guidance. Following OPU, our patients rest at our center for 30-45 minutes, thereafter they go home. Since OPU is done under light general anesthesia, it is best for the patient not to work that day, although not mandatory. Some patients may feel short-lasting and mild lower abdominal, pelvic or back pain following the procedure. Following OPU, some of the patients might also experience some light vaginal bleeding or spotting as is the last days of menstruation. On the day of OPU (Day 0), microinjection procedure is performed for mature oocytes with washed and prepared spermatozoa, which is produced by the husband by masturbation. One spermatozoa is

injected under high-magnification microscopy inside of an each mature oocyte. Fertilization is checked one day after. The embryos were transferred 3 or 5 days after the retrieval of the oocyte, depending on the quality of the gametes. As a policy, we transfer 1 embryo in women less than 35-yr old for the first or second IVF treatment cycles. For rare patients failing to conceive with the first 2 IVF attempts, we may consider transferring two embryos. In women greater than 35-yr old, we transfer 1 or 2 embryos, following frank discussion with the couple.

The procedure of ET is done under ultrasonographic guidance with full bladder and it takes about 3-4 minutes. To perform ET, a speculum, an examination tool during routine vaginal examination, is introduced into the vagina and cervix is cleaned with sterile medium. A trial test is performed to map the entrance to the cavity. Thereafter, once the trial test is complete, the embryologist brings the embryo-loaded catheter and the embryos are deposited into the middle of the uterine cavity under ultrasonographic guidance. ET is totally a painless and very quick procedure. Following ET, our patients rest for around 24-hr at our Center. Although not based on scientific evidence, we tell our patients to take it easy and have some bed rest for 2-3 days following ET.

All of the subjects received luteal phase support starting on the day of oocyte retrieval. It was performed by using either a daily dose of 100 mg of progesterone in oil or vaginal progesterone. Luteal support was continued until the pregnancy test was performed and in cases of pregnancy up to 10-12 weeks' gestation. Fourteen days after OPU, serum β -hCG levels were measured and repeated 2-4 days later if positive ($\text{hCG} > 10 \text{ IU/L}$). Determination of an embryonic heart beat at TVS was defined as a clinical pregnancy.

