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PREFACE

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Chapter 1

ABNORMAL UTERINE BLEEDING

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INTRODUCTION

Abnormal uterine bleeding is a common gynecological complaint affecting women of reproductive age. (2) (3) (4) (5) (6) Abnormal uterine bleeding is defined as bleeding from the uterus that is abnormal in regularity, volume, and timing and has been present for the majority of the past six months. (7) Characterized by variations in menstrual bleeding patterns, AUB encompasses a range of presentations, including prolonged or heavy bleeding (menorrhagia), frequent bleeding (polymenorrhea), irregular bleeding (metrorrhagia), and intermenstrual bleeding. (3) (2) The terminology surrounding AUB has been standardized to reduce variability and improve clinical communication, particularly regarding key definitions such as HMB, defined as excessive bleeding lasting more than 7 days or exceeding 80 mL of blood loss per cycle. (8)

Intermenstrual bleeding (IMB), which refers to bleeding between regular menstrual cycles, is frequently associated with structural abnormalities like endometrial polyps or malignancy, necessitating a thorough evaluation. (9) Other presentations include postcoital bleeding, often linked to cervical pathology, and unscheduled bleeding during hormonal contraceptive use, classified under iatrogenic causes. (10)

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Chapter 2

CERVICAL CANCER SCREENING AND ABNORMAL CERVICAL CYTOLOGY MANAGEMENT

Hacer ÖZDEMİR BİLGİNER[1]
Gizem DURMAZ[2]

INTRODUCTION

Cervical cancer ranks as the third most common gynecologic cancer diagnosis and is a primary cause of mortality among gynecologic cancers in Turkey (1). Cervical cancer exhibits lower incidence and fatality rates compared to uterine corpus and ovarian cancers, along with numerous other cancer types. In nations without cervical cancer screening and prevention initiatives, cervical cancer continues to be a major contributor to cancer-related morbidity and mortality.

Human papillomavirus (HPV) is important in the etiology of cervical neoplasia and is identified in 99.7 percent of cervical carcinomas(2). The major histologic kinds of cervical cancer are squamous cell carcinoma, constituting 70 percent, and adenocarcinoma, comprising 25 percent(3).

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Chapter 3

COMPARISON OF THE EFFECT OF PERCOLL GRADIENT AND SWIM-UP SPERM PREPARATION TECHNIQUES ON SEMEN PARAMETERS IN FERTILE AND INFERTILE MALES

Reşat MISIRLIOĞLU[1]
Levent TOKSÖZ[2]

INTRODUCTION

The application of assisted reproductive technologies (ART), such as injection of sperm into the uterus (IUI) and IVF, has revolutionised the treatment of infertility and offers hope to millions of couples around the world. These techniques are highly dependent on the quality of the sperm, and factors such as morphology, motility, and concentration contribute greatly to success in ART (1,2). The seminal plasma, however, contains materials that reduce its fertilising capacity such as immotile sperm, leukocytes as well as cellular debris, thus necessitating the need for further development of sperm preparation techniques to improve the quality of sperms used in ART procedures (3).

Sperm preparation techniques aim at isolating motile and morphologically normal spermatozoa from semen samples, thus increasing chances for successful fertilisation and pregnancy (4).

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HZA: Hemizona Assay

SPT: Sperm penetration test

ZFHO: Zona-free Hamster Oocyte

HZP: Human Zona Pellucida

ART: Assisted Reproductive Technology

CASA: Computer-Assisted Semen Analysis

ICSI: Intracytoplasmic Sperm Injection

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Chapter 4

CONGENITAL PULMONARY AIRWAY MALFORMATION

Mevlut BUCAK[1]

INTRODUCTION

Congenital lung masses include;

- Congenital pulmonary airway malformation
- Bronchopulmonary sequestration (BPS)
- Congenital lobar overinflation
- Bronchogenic cyst
- Bronchial atresia

Congenital pulmonary airway malformation (CPAM) is the revised name used to describe the disorder formerly known as congenital cystic adenomatoid malformation (CCAM). These disorders occur as a result of abnormal development of the airways, lung tissue, and/or blood vessels during the prenatal period of lung development. The degree, timing, and level of obstruction determine the pathology that results (1).

The development of CPAM during the prenatal period depends on variables such as the size of the mass, fetal hemodynamics, the degree of mediastinal shift, and any associated anomalies. If hydrops does not develop, the prognosis is generally good.

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Invasive intervention may be performed for fetuses with hydrops <32 weeks or at risk of developing hydrops (CVR >1.6) and who do not respond to steroids. An invasive approach is chosen depending on the type of lesion (macrocystic or microcystic). Macrocystic CPAM can be managed by drainage procedure (Cyst aspiration, thoracentesis, thoracoamniotic shunt), microcystic CPAM can be managed by resection (open resection) or ablation (Alcohol ablation, percutaneous sclerotherapy) procedure (25–29). Percutaneous laser ablation has also been described for use in CPAM (30).

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Chapter 5

DİAGNOSİS AND TREATMENT OF CERVİCAL INTRAEPİTHELİAL NEOPLASİA

Hacer ÖZDEMİR BİLGİNER[1]

İNTRODUCTION

Cervical intraepithelial neoplasia (CIN) is a precancerous condition that impacts the uterine cervix. The ectocervix, observable during a vaginal speculum examination, is covered with squamous epithelium, but the endocervix, encompassing the cervical canal, is lined with glandular epithelium. CIN particularly refers to irregularities in squamous cells. Conversely, glandular cervical neoplasia includes diseases such as adenocarcinoma in situ (AIS) and adenocarcinoma.

TERMINOLOGY

Cervical dysplasia, which refers to premalignant squamous alterations in the cervix, was previously classified as mild, moderate, or severe. In 1988, the Bethesda system was created as a new classification system, subsequently modified in 1991, 2001, and 2015. This method employs specific nomenclature for cytological findings (derived from a Pap smear) and histological findings. Cytologic abnormalities are termed "squamous intraepithelial lesion (SIL)," whereas histology abnormalities are designated as CIN (1).

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If the surgical margin is positive or ECC histology indicates CIN2 and higher lesion post-procedure, repeat excision or observation is permissible for women aged ≥25 who have no concerns regarding future pregnancies or the procedure's effects on pregnancy outcomes.

Monitoring is advised for people under 25 or those apprehensive about pregnancy problems. In cases of recurrent histologic HSIL following excisional treatment, and when repeat excision is impractical or undesirable, a hysterectomy is advised. 2.Long-Term Follow-Up After High-Grade Histology or Cytology Treatment

Patients treated with HSIL get follow-up with annual HPV or co-testing until three consecutive negative results are obtained. Subsequently, long-term monitoring should persist every three years for a minimum of 25 years, irrespective of the patient's age beyond 65 years.

3.Long-Term Monitoring of Low-Grade Cytology and Histology

For individuals initially identified with low-grade cytology, histological abnormalities, or HPV infections, ongoing follow-up informed by risk assessment using current data is advised.

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Chapter 6

POLYCYSTIC OVARY SYNDROME: CLINICAL FINDINGS AND CURRENT MANAGEMENT APPROACHES

Samet KIRAT[1]

INTRODUCTION

A prevalent endocrine disorder known as polycystic ovary syndrome (PCOS) impacts between 4% and 20% of females during their reproductive years (1). Originally recognized by Stein and Leventhal in 1935, this syndrome is characterized by hyperandrogenism, oligo/anovulation, and polycystic ovarian morphology on ultrasonography (2). The 2003 Rotterdam criteria expanded the diagnostic process and allowed the identification of different phenotypes (3). Due to the diversity of its clinical features and variability among individuals, PCOS is considered a complex disorder that leads to metabolic, cardiovascular, and psychosocial problems beyond its effects on reproductive health (4).

The precise mechanisms underlying PCOS remain incompletely understood, yet it is theorized to emerge from a complex interplay of genetic vulnerability, environmental factors, and hormonal and metabolic components (5). Insulin resistance and accompanying hyperinsulinemia are pivotal factors in the pathogenesis of this syndrome, significantly contributing to clinical manifestations, particularly by promoting hyperandrogenism (1). In individuals

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