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PREFACE

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Contents

Chapter 1

A NEW BREATH IN THE MEDICAL TREATMENT OF OVERACTIVE BLADDER: BETA-3 ADRENERGIC AGONIST

Ömer DEMİR[1]

OVERACTIVE BLADDER

The definition of overactive bladder is a syndrome not a disease and the symptoms are defined as complex. The key components are urgency +/- incontinence, frequency and nocturia.

Urinary tract infections and other pathologies that may cause these symptoms should be ruled out before diagnosis. [1,2] This pathology, affecting 12% of men and women, increases with advancing age, and 70-80% of people are affected up until the age of 80. [3]

In general 33% suffer from wet overactive bladder accompanied by incontinence while the remaining 66% do not experience incontinence and suffer from dry overactive bladder. [4]

The psychological and financial consequences of this pathology, which is a condition that negatively affects quality of life and leads to social isolation, can be significant at certain points of time in a patient's life. It is an important cause of mortality and morbidity, especially in elderly people.

Therefore, it is necessary first to diagnose it correctly and then to treat it.

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So far, studies have shown that the beta-3-adrenergic agonist drug offers a breath of fresh air in the treatment of OAB and has been placed in the second line of algorithmic treatments.

As more and more multicentre and comprehensive studies are conducted on this drug, which is being licensed in an increasing number of countries, more will be learnt about both its efficacy and adverse effects.

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Chapter 2

CESAREAN SCAR PREGNANCY

Cem YENER[1]

INTRODUCTION

Ectopic pregnancy appears to happen about 1 to 2 percent of all pregnancies(1). While more than 90 percent of ectopic pregnancies are placed in the uterine tubes, it can also be seen in abdomen, cervix, over or myometrium/cesarean scar. Because it is seen infrequently in areas except tuba, most information to diagnose and treat these pregnancies determined from limited observational studies and case reports. This is why deciding optimal treatment for these pregnancies is difficult.

Here cesarean scar pregnancy(CSP) will be reviewed. Because of its lethal complications, early diagnose and treatment is very important.

It is estimated that cesarean scar pregnancy seen 1 in 2000 all pregnancies and it forms 6 percent of extrauterine pregnancies(2). It seems that incidence of it does not increase with the number of cesarean deliveries. In literature there are some reports that similar pregnancies also detected in previous myomectomy scars(3).

Location of it is in the previous cesarean scar and it is encircled by myometrium and surrounding tissue. It is supposed that the mechanism for implantation is transfer of embryo from wedge defect in the lower uterine segment or fistula inside the scar(4).

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cy after CSP[26] while uterine rupture and placental adhesion have also been reported[27]. Patients should be warned about that they should deliver with cesarean in subsequent pregnancy. Early ultrasound should be carried out in following pregnancies for detecting possible CSP.

In conclusion, surgical treatment should be primary treatment modality in advanced CSP while in early detected CSP can be treated by medical modalities.

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Chapter 3

INTRAHEPATIC CHOLESTASIS OF PREGNANCY

Mefkure ERASLAN ŞAHİN[1]

1. INTRODUCTION

Intrahepatic cholestasis of pregnancy (ICP) is an important pregnancy-specific liver disease, characterized by typical pruritus of the palms and soles that begin in the second and third trimester, impaired liver function, and increased maternal serum bile acid levels. In the literature it is well documented that ICP is associated with adverse prenatal outcomes such as stillbirth, meconium-stained amniotic fluid, preterm delivery, fetal bradycardia, and fetal distress (Ghosh & Chaudhuri, 2013). Although ICP is a topic that is frequently explored today, it still causes anxiety and fear of sudden fetal demise near term without any warning signs (Ghosh & Chaudhuri, 2013). In this book section, we aimed to yerine I aimed to reevaluate the important steps in the diagnosis and treatment of the disease and to contribute to the literature.

2. LIVER AND BILE ACID HOMEOSTASIS

The basic bile acids are chenodeoxycholic acid and cholic acid. These are synthesized in the liver as the final products of cholesterol catabolism and are stored in the gall bladder after conjugation with glycine or taurine. Cholecystokinin stimulates the gall bladder after bile acids are released into the lumen of the

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in the future, but the full impact is not yet clear. Counseling of women who have had ICP in pregnancy should include a discussion about the risk of repeat episodes of ICP in future pregnancies as well as their chances of cholestasis due to oral contraceptive use. However, it is difficult to determine the actual risk of recurrence. One study in the literature has stated that up to 90% of future pregnancies after an initial pregnancy complicated with ICP will have another episode of ICP. However, this rate is likely to be lower if the first pregnancy was a multiple birth. Because estrogen-containing contraceptives may increase the risk of biochemical cholestasis and ICP symptoms, patients should be told this and given recommendations regarding other types of contraception.

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Chapter 4

ROLE OF CANCER STEM CELLS IN OVARIAN CANCER

Serra AKAR[1]

INTRODUCTION

Ovarian cancer is the fifth leading cause of cancer-related mortality in women (1). Mortality from ovarian cancer has not decreased substantially in the past few decades (2,3). Majority of patients with ovarian cancer are diagnosed at an advanced stage of the disease, owing largely due to the lack of specific symptoms in early-stage disease and the absence of a feasible screening program (4). The disease recurs in up to 80% of patients within the first 24 months after primary treatment (4-8).

Epithelial ovarian carcinomas comprise up to 95% of cases of ovarian cancer. Histological subtypes include high-grade serous, mucinous, endometrioid, low-grade serous, clear-cell, Brenner and undifferentiated tumors (9). High grade serous carcinoma (HGSC) is the most common histological subtype of epithelial ovarian cancer accounting for up to 75% of cases. Over 75% of patients with HGSC are diagnosed at an advanced stage and metastatic disease is responsible for the lethality of the disease (4,7,10). HGSCs are associated with TP53 mutations in virtually all cases and BRCA1 and 2 mutations in up to 50% of cases (11,12). They are genomically unstable (13).

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ifications may include the methylation of DNA, histones and the acetylation of histones. As such, DNA methyltransferase inhibitors, histone methyltransferase inhibitors and histone deacetylase inhibitors carry potential therapeutic value (98-100).

Targeting of the WNT pathway by WNT inhibitors (Ipafricept) has resulted in tumor shrinkage and attenuation of ovarian CSC-induced tumor progression (101). Inhibitors of the notch pathway are still under investigation (102). Notably, the anti-diabetic drug metformin, has exhibited selective activity against ovarian CSCs through EMT reversal at low-doses (103).

CONCLUSION

Growing evidence indicates that ovarian CSCs are endowed with numerous capabilities that are involved in tumorigenesis, metastases, chemoresistance and evasion from immune defenses. Their interaction with tumor microenvironment can be pivotal in the reprogramming of CSCs and their acquisition of mesenchymal traits through EMT. Numerous signaling pathways and proteins may be therapeutic targets in overcoming processes of self-renewal, epigenetic changes and metabolic derangements associated with ovarian CSCs. Their elimination may hold potential value not only in preventing metastases and relapse but even in eradicating cancer.

Keywords: Ovarian cancer, Cancer Stem Cells, Chemoresistance, Metastasis

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Chapter 5

THE MANAGEMENT OF THE THROMBOCYTOPENIA IN PREGNANCY

İlknur ÇÖL MADENDAĞ[1]

It is very important to evaluate the thrombocytopenia in pregnancy because it is a frequent hematological problem in pregnant women and its etiology has many reasons. Some of them are dependent to pregnancy while some are unrelated. This topic presents definition of the thrombocytopenia and its reasons, and how an obstetrician should manage the pregnant patients with thrombocytopenia.

THROMBOCYTOPENIA

Normal range of the blood platelet count is between 150.000 and 450.000/microL. Platelet counts maintain in normal range for almost all low-risk pregnancy (no perinatal risk) while they slightly decrease in multiple pregnancies (1). As a general definition, thrombocytopenia is defined when blood platelet count is under 150.000/microL and can be seen in 7-12% of all pregnancies (2). It is defined readily by complete blood counter, but the find of reasons of the thrombocytopenia is quite difficult for pregnant patients. Thrombocytopenia may generally leads to bleeding into mucous membranes, abnormal uterin or gastrointestinal or urinary bleeding, gingival bleeding, epistaxis, petechiae, and ecchymosis (3). Either decreased production of platelets or increased destruction of platelets leads to thrombocytopenia. The

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Chapter 6

TWIN PREGNANCY: DIAGNOSIS, MANAGEMENT AND TIMING OF DELIVERY

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Twin pregnancies are the complication of assisted reproductive technology (ARTs) with an icreased prevalance nowdays. Twin pregnancies have great tendency towards DM, preeclampsia, preterm delivery, Premature preterm rupture of membranes (PPROM), fetal abnormalities etc. This topic will review issues related to management, diagnosis and timinag of delivery.

1) TERMINOLOGY:

1. Zygosity: Zygosity can be divided into two main categories; dizygotic and monozygotic. Dizigotic twin is used to describe fertilization of two ova with two separate spermatozoa in the course of same menstrual cycle. Monozygotic twin is used to describe fertilization of one ovum with one spermatozoon that formed two other separate individuals via division in the course of same menstrual cycle.

Other terminologic appoach depends upon membranes which can be determined at the extrinsic and intrinsic side of conseption that surround the fetuses.

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