

Chapter 11

OBSTETRIC ANESTHESIA

Ali Bestemi KEPEKÇI^{1,2}

Introduction

Obstetric anesthesia is anesthesia applied to all women during pregnancy, delivery and postpartum period.

During labor and birth, a woman experiences one of the most severe pain she will have throughout her life. In a study by Melzack; showed that the birth pain was the most severe pain after finger amputation and causalgia (Balcioglu, 2003). Throughout the history of humanity, many methods have been tried to make births painless. All pregnant women will delight found no analgesia. The choice of analgesia mother's request, the woman should be done according to the co-decision process of obstetricians and anesthesiologists and labor (Erdine, 2005).

Anesthesia in obstetric cases requires a special approach. Because both women and fetuses will be affected by the anesthesia applied. In order to establish optimal anesthesia during labor, physiological changes during pregnancy should be avoided. The effects of drugs used during anesthesia on the fetus/newborn and the mother should be known.

Physiological Changes During Pregnancy

Complex physiological changes occur in the mother for feeding and healthy growth of the fetus and placenta during pregnancy. These changes are secondary reactions given mainly to changes in the secretion of female sex hormones. It is very important to know these physiological changes, to understand the diseases that may arise and to recognize the pathophysiological deviations during anesthesia. There are many changes in maternal physiology. In this section, we will only discuss any changes that may be directly related to anesthesia.

Respiratory System

Oxygen consumption increases by 20 -50%. The respiratory minute volume increases by 50%. This increase is mainly due to the increase in tidal volume. With this physiological hyperventilation, the partial pressure of arterial carbon dioxide (PaCO₂)

¹Assistant Professor, İstanbul Yeni Yüzyıl University, Health Occupation High-School Anesthesia, İstanbul, Turkey/ alibestemi.kepekci@yeniyyuzyil.edu.tr

²Specialist Doctor, Anaesthesiology and Reanimation, Meltem Hospital, alibestami@gmail.com

Placenta Previa

Patients with active bleeding or without stable hemodynamics require an immediate cesarean section under general anesthesia. Intravascular volume deficits should be completed urgently and blood should be available for transfusion. Bleeding may continue after birth. This is because the placental implantation site in the lower uterine segment can enter atony. Placenta previa in the patient or cesarean section increases the risk of abnormal placentation.

Abruptio Placentae

Placentae is the early departure of the uterus. 1-2% seen in gestation. Most are lightweight. However, 25% are severe. The main risk factors are hypertension, trauma, a short umbilical cord, multiparity, prolonged premature rupture of membranes, alcohol abuse, cocaine use, and an abnormal uterus.

The patient's resuscitation should be treated quickly. Blood transfusion, coagulation deficiency, fresh frozen plasma, platelet concentrate, cryoprecipitate may be required (Ananth & et al., 1996).

When it is not possible to make blood transfusion in hemorrhagic pregnancies; Pulmonary edema may develop if hypovolemia is attempted to be completed with crystalloid electrolyte solutions in high doses. If hypovolemia has developed after bleeding, colloid fluids (gelatin, etc.) should be preferred when fluid replacement is determined. Blood and blood product transfusions in hemorrhagic pregnancies should be well organized.

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