11. EVOLUTION AND MANAGEMENT OF THE MULTIPLE PREGNANCY

Author: Melenciuc Mădălina

Scientific adviser: Catrinici Rodica, MD, Associate Professor, Discipline of Obstetrics, Gynecology and Human Reproduction, Department of Obstetrics and Gynecology, *Nicolae Testemitanu* State University of Medicine and Pharmacy of the Republic of Moldova.

Introduction. Multiple pregnancy is a high risk situation for both mother and fetus. Prematurity is the main outcome, with important contributions from IUGR (intrauterine growth restriction), malformation and twin-twin transfusion syndrome. The risk of cerebral palsy is increased 6 fold with twins and up to 24 fold with triplets, with etiology not just restricted to prematurity. Maternal mortality is double that of singleton pregnancies mainly due to an increase in pre-eclampsia and hemorrhage. Up to 25% of multiple pregnancies are complicated by pregnancy-induced hypertension and the incidence of gestational diabetes is 2-3 times that seen in singletons. The risk of pre-eclampsia increases 3 fold for twins and is greater for higher order pregnancies. Antepartum and postpartum hemorrhage, urinary tract infections and operative delivery are all more common.

Aim of study. The diagnosis, assessment and management of women with multiple pregnancies.

Methods and materials. This publication brings in several review data and the results of a clinical study that was based on analysing 50 women with multiple gestation that were hospitalised in "Gheorghe Paladi" Municipal Hospital in the period of 2021. We studied whether these pregnancies occurred spontaneously or with treatment (and if they occurred with treatment: what kind of assisted reproductive technology was used), which complications occurred during the pregnancy, preterm birth rates and status of discordance between the foetuses.

Results. The incidence of multiple gestation was observed to make up 0.79% in the period of 2021. A total of 50 twins were followed in our clinic during the last 1 year. 42 of the twin pregnancies (84%) occurred spontaneously and 8 of them via in vitro fertilisation (16%). Dichorionic-diamniotic placenta was found in 33 (66%) of Twin pregnancies, 17 (34%) of them had monochorionic-diamniotic placenta. The most common presentation of twin pregnancies was head-head which was followed by head-breech, breech-head and head- fetal transverse site. Preeclampsia, urinary tract infection and cholestasis were observed in 3, 4 and 7 patients respectively. Twin-to-twin transfusion syndrome was present in one patient (2%) and 5 patients had IUGR twin pregnancy. Eight (16%) patients had emergency cesarean section due to fetal abnormal position, while 11 patients were hospitalised because of preterm labour and 12 (24%) women had preterm premature rupture of the membranes. Only 9 patients had no problem during pregnancy. The optimal mode of delivery of twins is a controversial issue. In twin pregnancies, caesarean section is recommended. In our case, 21 women gave birth by caesarean section (40% urgently and 18% electively) and 29 women gave birth vaginally, of which 4% were complicated by the application of the suction cup and placental tissue defect.

Conclusion. Therefore, in order to avoid these complications, all multiple pregnancies should have chorionicity determined at the first scan, ideally in the first trimester. Monochorionic pregnancies should be scanned at fortnightly intervals and complications such as twin to twin transfusion or IUGR referred to a fetal medicine center. In twin pregnancies, caesarean section is recommended in the existence of monoamniotic twins, conjoined twins, foot presentation in one of the twins, placental disorders, breech presentation and existence of weight difference of more than 20% between the twins. The high frequency of prematurity, preeclampsia, hydramniosis, abruptio placentae increase the mortality in these pregnancies. Furthermore, preterm birth was observed more in twin pregnancies that occur after a treatment compared to ones that happen spontaneously. Developments in assisted reproductive technology have been increasing the number of multiple gestations and their complications. In a small percentage of patients, treatment results in multiple pregnancy may place the mother and the babies at increased risk for an unhealthy outcome. Since multiple pregnancies and their complications are an inevitable risk of fertility therapies, education about these risks is crucial prior to treatment. Ultimately, prevention is the key to reducing the risk of multiple pregnancy.