

## 10. GESTATIONAL DIABETES MELLITUS AND MACROSOMIA: MUNICIPAL CLINICAL HOSPITAL "GHEORGHE PALADI" EXPERIENCE



**Author:** Micinschi Nadina; **Co-authors:** Catrinici Rodica, Baxan Alexandra

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

**Introduction.** Gestational diabetes mellitus (GDM) is a metabolic complication during pregnancy. It is defined by the development of glucose intolerance, primarily diagnosed in pregnancy. According to literature between 15-45% of newborns of mothers with GDM are macrosomic. Fetal macrosomia (FM) is a term used for newborns with birth weight  $\geq 4000$  g.

**Aim of study.** To reveal the correlation between GDM and macrosomia, to discuss the diagnosis of macrosomia and therapeutic options.

**Methods and materials.** The retrospective study was conducted in the Obstetrics Department no.1 of Municipal Clinical Hospital "Gheorghe Paladi" during 2021 and 83 patients were selected. Evaluated parameters were: epidemiological data, type of GDM, maternal obesity, the birth weight of the newborns, gestational age, Apgar score, type of baby delivery.

**Results.** Mothers without GDM – 70 (84,33%), mothers with GDM – 13 (15,66%) with mean age 30,7 years. Among patients with GDM – 11 (84,61%) were with compensated form of GDM and 2 (15,38%) with decompensated form of GDM. Maternal obesity was attested in 16 (19,27%) cases, among them 5 (31,25%) delivered macrosomic newborn, 3 (18,75%) have maternal obesity associated with GDM and macrosomia and 1 (6,25%) – maternal obesity, GDM and normal weight newborn. Mothers without GDM and normal birth weight newborn – 62 (74,69%), mothers with GDM and macrosomic fetus – 9 (10,84%), mothers without GDM, but with macrosomic fetus – 8 (9,63%), mothers with GDM and normal birth weight newborn – 4 (4,81%). Newborns with birth weight  $<4000$  g – 66 (79,51%), newborns with birth weight  $>4000$  g – 17 (20,48%). The average birth weight of the newborns – 3932 g. The Apgar score rates were between 0/0 – 9/9. The most common rate of the Apgar score was 8/9 (30,12%), followed by 8/8 (26,5%), 9/9 (22,89%), 7/8 (10,84), 6/7 (4,81%), 5/6 and 0/0 (1,20% each of them). The macrosomia was established in 14 cases (82%) using ultrasound. Predictive values used to estimate fetal weight were biparietal diameter, head and abdomen circumferences, femur length. GDM was primarily diagnosed at 4 nulliparous (30,76%) and 2 multiparous (15,38%). Vaginal delivery was elected in 58 cases (69,87%) and C-section 25 times (30,12%). The most frequent indications for C-section are scarred uterus, placental detachment, diabetic fetopathy, fitopelvic disproportion, dynamic distocia.

**Conclusion.** Fetal macrosomia is a common complication among GDM patients. The correct management of glucose abnormality in the pregnancy will contribute to avoiding complications and will decrease the ratio of macrosomia.