in a setting where medical support of very preterm neonates is lacking is a challenge. We present here a case of early-onset fetal growth restriction complicated with anhydramnios and reversed diastolic flow of the umbilical artery at 22 weeks. Review of lifestyle, and other work-up done for antiphospholipid syndrome, systemic lupus erythematosus and endocrine disorders, all yielded negative results. Aside from mild fetal hydronephrosis and single umbilical artery, there was no other fetal structural anomaly seen. Non-invasive prenatal testing was low risk for aneuploidy. The patient was serially treated with aspirin, tinzaparin, intralipid infusions and intravenous immunoglobulin and monitored bimonthly with biometry, biophysical profile and Doppler velocimetry, with improvement of the amniotic fluid volume and Doppler velocimetry findings to normal. The fetus however remained below 1 percentile by Hadlock. A complete course of betamethasone was given at 28 weeks to improve pulmonary maturity. At 34 weeks, occasional absent end diastolic flow of the umbilical artery was again noted, prompting delivery by cesarean section. She delivered a live baby girl, 1472 grams, APGAR 8-9, with pelvocaliectasia. The baby stayed in the NICU for 19 days, during which, she was treated for pneumonia and was discharged well. This case illustrates that with close fetal surveillance, it is possible to have a good outcome in a very early onset of fetal growth restriction. Further studies are needed to identify the certain populations where anti-thrombotic, anti-inflammatory treatment may work for the treatment of fetal growth restriction.

Keywords: Fetal growth, early onset, reversed flow

## OP-005 Risk factors for recurrent gestational diabetes mellitus in multiparous women: a retrospective cohort study

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**Objective:** Gestational diabetes mellitus (GDM) is the most common metabolic complication during pregnancy. Worldwide GDM affects approximately 16.2% of all pregnancies with elevated risk of adverse maternal and neonatal outcomes. Women with a hystory of GDM are at increased risk of GDM recurrence in subsequent pregnancy. The aim of this study is to evaluate the predictive factors for the risk of GDM recurrence.

**Methods:** In this retrospective cohort study, we included 63 women with a history of GDM and a subsequent pregnancy with delivery between January and December 2023 at an Italian Tertiary Care Hospital. Women were divided into two groups according to GDM recurrence: group A (no recurrent GDM) and group B (recurrent GDM). Maternal characteristics, laboratory parameters, delivery and neonatal outcomes of the index and subsequent pregnancies were recorded.

**Results:** The overall risk of GDM recurrence was 71.4% (45/63). The pregravid BMI of women with recurrent GDM increased between the two pregnancies (26.87 ± 4.22 vs. 29.73 ± 5.69 kg/m2, p:0.0081). In group B interpregnancy weight gain was higher (0.34 ± 5.21 vs. 3.1 ± 7.25 Kg, p: 0.0394), as was the rate of overweight and obese women. There were significant differences in OGTT levels performed during the Index pregnancy: fasting, 1-hour and 2-hour post-OGTT glucose values were significantly higher in group B (both early and late testing), as were the number of abnormal OGTT values. During the Index pregnancy, insulin treatment (22% vs 35.6%) and excessive weight gain (16.7% vs 25%), although higher in group B, did not reach statistical significance. Mode of delivery and fetal outcome (Index pregnancy), maternal age, inter-pregnancy interval, and positive familiy history for diabetes resulted not predictive for GDM recurrence.

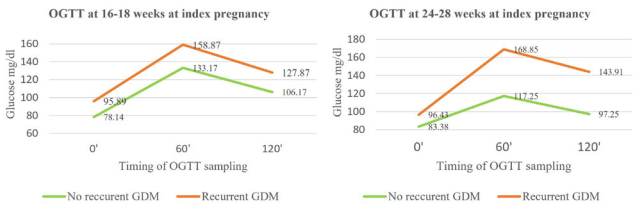


**Fig 1.** OGTT at 16-18 weeks at index pregnancy and OGTT at 24-28 weeks at index pregnancy

**Conclusion:** High pregestational BMI with more pronounced interpregnancy weight gain, in combination with higher OGTT levels in the Index pregnancy and two or more abnormal OGTT values, were associated with recurrence of GDM in the Subsequent pregnancy. Normalization of pregravid BMI should be an effective approach for reducing the risk of GDM recurrence. Treatment strategies should include lifestyle interventions that focus on the interconceptional period, providing evidence-based preconceptional counseling to optimize reproductive outcomes and reduce short- and long-term risks associated with GDM, for both mother and offspring.

Keywords: Recurrent gestational diabetes, oral glucose tolerance test, obesity