Maternal and fetal outcomes of twin pregnancies: a retrospective cohort study

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Introduction

Twin pregnancies are an uncommon condition that can occur with multiple complications for the mother and fetus.

The aim of this study was to access maternal and fetal outcomes, in twin pregnancy, in the last 7 years, as a differentiated perinatal hospital.

Methods

Retrospective single-center study of twin pregnancies followed at our obstetrics department, between 2015 and 2022. The study included 313 women. Data was collected from electronic patient records and retrospectively reviewed.

Were assessed maternal and fetal outcomes.

The statistical analyses were performed using IBM®SPSS®Statistics29.

Conclusion

From our experience in these last years despite the prevalence of gestational diabetes and hypertensive disorders and high caesarean rate, our newborns are being delivered safely with good neonatal outcomes and few maternal complications.

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Results

Maternal Characteristics

Maternal age was in mean 32,8±4,9 years old and body mass index (BMI) 24,8±4,9 kg/m^2.

Of the 313 pregnancies 35/313(11,2%) developed gestational diabetes and 20/313(6,4%) pre-eclampsia.

Pregnancy and Fetal Characteristics

A total of 313 twin pregnancies were found, of which 6/313(1,9%) where triplet, 232/313(74,1%) dichorionic, 70/313(22,4%) monochorionic/diamniotic and 5/313(1,6%) monochorionic.

35/313 (11,2%) of the fetus developed fetal growth restriction, 20/313 (6,4%) presented with growth discrepancy, 12/313 (3,8%) amniotic fluid discrepancy and 6/313 (1,9%) cases of TTTS.

Labour	Total	BC	MC	Triple	
Before 32W	47/313(15%)	30/43 (69,8%)	13/43(30,2%)	4/5 (80%)	
32W-36W	181/313(57,8%)	129/180 (71,7%)	51/180 (28,3%)	1/5 (20%)	P=0,01
After 37W	85/313(27,2%)	73/85 (85,9%)	12/85 (14,1%)	0/5 (0,0%)	
C-sections	232/313(74%)	167/232 (72%)	60/76 (79%)	5/5 (100%)	P=0,2

We found a statistically significant result between women who goes into spontaneous labour and the success of the vaginal birth (p<0,01), and the mother BMI and the development of hypertensive disorders (p=0,02). Regarding C-section, similar results have been reported in the work of Wandel et all. Although in Dennamark Hoofmann et all had a significant lower results with 48% of vaginal delivery in DC pregnancies and 39% in MC. Other portuguese center reported, in 2011, that their cesarean delivery rate was 58,8% in MC vs 50,3% in DC. Our C-section data maybe be due to not perform pelvic vaginal delivery and monochorionic c-section rate maybe influenced by the monoamniotic gestations.