

More than two: and now, what to do?

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Introduction

The rate of multiple pregnancies has significantly increased due to the widespread use of assisted reproductive technology and increasing maternal age at conception. Triplet and higher order multiple pregnancies are known to be associated with increased adverse outcomes.

Objective

The aim of this study was to review the obstetric and perinatal outcomes in women with triplet and higher order multiple pregnancies who underwent multifetal pregnancy reduction or expectant management in our institution.

Methodology

Descriptive, observational, and retrospective study of triplet and higher order multiple pregnancies admitted at Centro Hospitalar e Universitário São João, from January 2016 to April 2023. Data were obtained through consultation of the electronic medical records (Obscare®, Scínico®, and Astraia®). All cases received regular vigilance and counseling from the first trimester, except two cases. We aim to describe:

- Maternal and pregnancy characteristics
- Couple's decisions
- Procedures and its complications
- Outcomes

The cases were divided into three groups:

- Expectant management (n =10)
- Multifetal pregnancy reduction (n= 5)
- Termination of the pregnancy group (n=1)

We excluded one case that was a non-viable triplet pregnancy.

Conclusion

This study highlights the challenges and potential complications associated with triplet and higher order multiple pregnancies. The expectant management was the elected approach for the most couples. Early counseling and regular monitoring throughout these pregnancies is important to improve the outcomes. The result of this study may help clinical decision-making and counseling for couples with triplet and higher order multiple pregnancies.

Results

Table 1. Comparison of the demographic and clinical data of patients.

	Mean ± standard deviation or No. of cases			Termination of pregnancy (n=1)
	Expectant management (n=10)	Multifetal pregnancy reduction		
		Reduction to twins (n=4) *	Reduction to singleton (n=1)	
Maternal age, years	33,9 ± 5,2	33,3 ± 5,1	45	32
Body mass index (Kg/m ²)	24,9 ± 5,2	23,5 ± 4,2	21,9	20,2
Nulliparous	8	4	1	0
Chorionicity				
Dichorionic triamniotic triplet	6	0	1	0
Trichorionic	2	3	0	0
Monochorionic triamniotic triplet	2	0	0	0
Monochorionic diamniotic quadruplet	0	0	0	1
Tetrachorionic	0	1	0	0
Mode of conception				
Spontaneous	6	0	0	1
Assisted reproduction	4	4	1	0
Gestational age at reduction	N/A	12,6 ± 0,5	13,3	N/A
Method of fetal reduction				
Fetal intracardiac potassium chloride injection	N/A	3	1	N/A
Fetal intracardiac lidocaine	N/A	1		N/A
Procedure complications	N/A	0	0	N/A
Pregnancy complications				
Gestational diabetes	0	0	1	0
Preterm premature rupture of membranes	2	0	0	0
Short cervix	4	1	0	0
Threatened preterm labor	8	1	0	0
Pregnancy intrahepatic cholestasis	1	0	0	0
Preeclampsia	1	1	0	0
Chorioamnionitis	1	0	0	0
Length of admission (days)	21,5 ± 25,3	5,15 ± 6,9	4	2
Fetal loss of the whole pregnancy (< 24 weeks)	1	1	0	0
Fetal loss of one of the fetuses in the pregnancy (<30 weeks)	0	1	0	0
Pregnancy with at least one FGR fetus	2	1	0	0
Pregnancy with TRAP sequence	0	0	0	1
Pregnancy with at least one fetal malformation	1	1	0	1
Gestational age at delivery (weeks)	30,8 ± 2,9	30,1	38,1	N/A
Gestational age at delivery (weeks)				
24-27	2	0	0	N/A
28-31	3	1	0	N/A
32-36	4	0	0	N/A
>37	0	0	1	N/A
Vaginal delivery	0	1	1	N/A
Cesarean delivery	9	0	0	N/A

Abbreviations: FGR = fetal growth restriction; TRAP = twin reversed arterial perfusion; N/A = not applicable; TOP = termination of pregnancy. * Two cases still going.

- Total of 14 triplets and 2 quadruplets
- 9 of the cases were a result of assisted reproductive technology
- First trimester counseling provided in 14 of the cases
- Fetal reduction performed in 5 pregnancies

- Fetal reduction to a singleton resulted in a term birth.
- In cases of reduction to twins occurred one pregnancy loss at 22.6 weeks and an early preterm delivery (after fetal death of one fetus at 29.2 weeks due to fetal growth restriction)

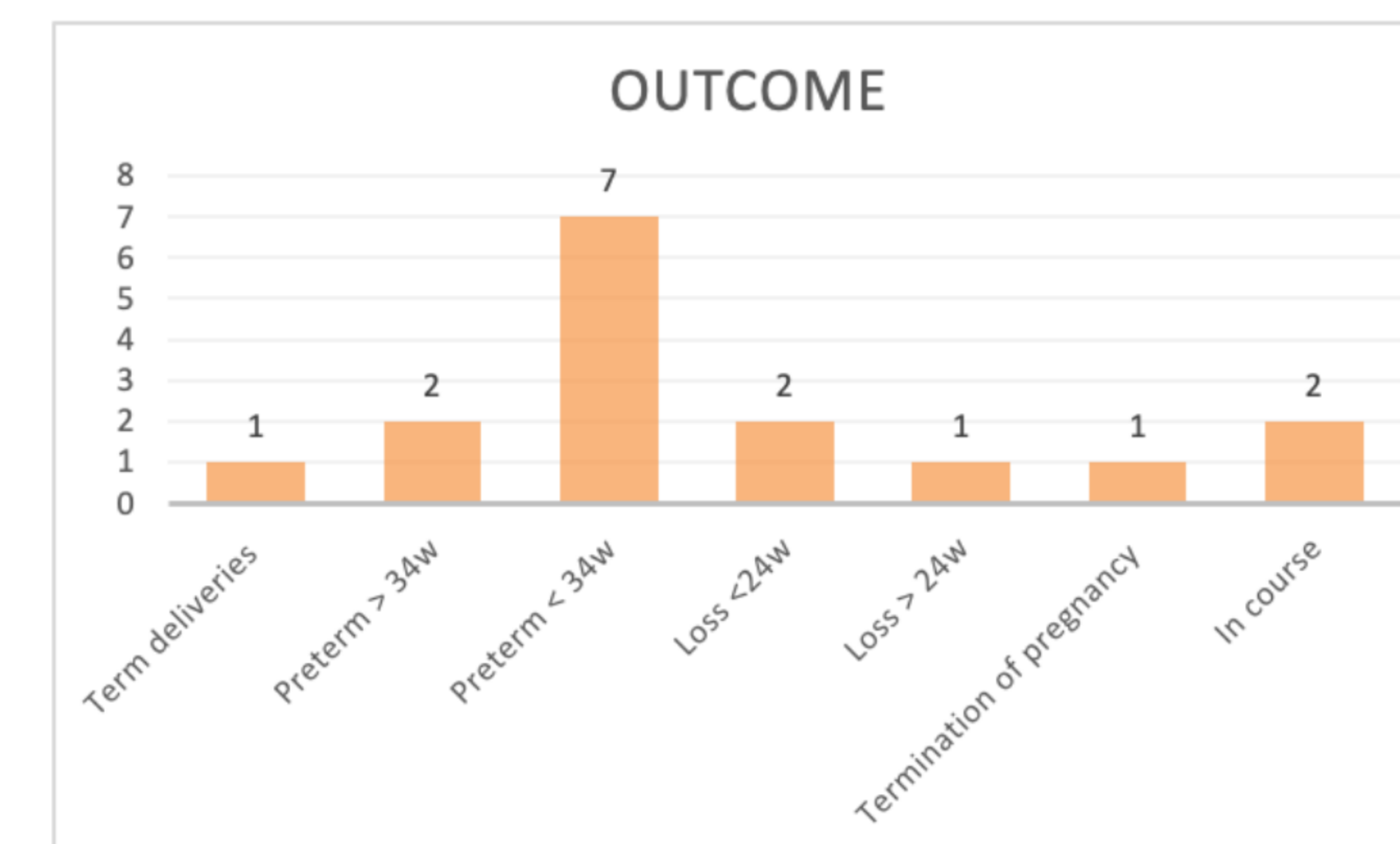


Table 2. Neonatal outcomes in fetuses beyond 24 weeks.

	Mean ± standard deviation or No. of neonates		
	Expectant management (n=27)	Multifetal pregnancy reduction	
		Reduction to twins (n=2)	Reduction to singleton (n=1)
Fetal outcomes at birth			
Fetal death	4	1	0
Live birth	23	1	1
Birthweight (g)	1372,0 ± 413,2	945 ± 415	2365
Neonatal intensive care unit admission	23	1	0
Neonatal death	3	0	0