

EP 13.22 Perinatal outcomes in monochorionic diamniotic pregnancies at a tertiary center.

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Objective

Describe perinatal outcomes of monochorionic diamniotic pregnancies in a maternal-fetalmedicine unit.

Methods

A database of monochorionic diamniotic pregnancies with follow-up and perinatal outcomes overfive years was analyzed. Descriptive statistics expressed categorical variables, complication rates, and survivalas numbers and percentages.

Results

360 monochorionic diamniotic twin pregnancies were identified. Of these, 185 (51.4%) developedcomplications: TTTS 53 cases (14.7%), sIUGR 124 (34.4%), TAPS 1 (0.3%), and TRAP 7 (1.9%). Of 720 expected fetuses, 618 (85.8%) were born alive.TTTS cases had an overall survival rate of 62.26%, with one survivor in 16 cases (30.2%) and both surviving in 25 cases (47.2%), resulting in at least one survivor in 77.3%. Quintero staging was: I (3, 5.7%), II (17, 32.1%),III (18, 34.0%), IV (13, 24.5%), and V (2, 3.8%). Treatment was expectant in 9 cases (17.0%) and surgical in 44 cases (83%): amniodrainage (11, 25%), laser cord occlusion (5, 11.4%), and selective laser photocoagulation (28, 63.6%).sIUGR cases had an overall survival rate of 95.2%, with one survivor in 8 cases (6.5%) and both surviving in 114 cases (91.9%), leading to at least one survivor in 98.4%. They were classified as type I (83, 66.9%), II (21,16.9%), and III (20, 16.1%). Treatment included expectant management (121, 97.6%) and surgical intervention(3, 2.4%), all of which involved laser cord occlusion (3, 100.0%).TAPS had a 50% survival rate, with one surviving fetus, classified as Stage 5 (1, 100%) and managed expectantly (1, 100.0%). TRAP cases had an overall survival rate of 28.6%, with expectant management in 4 cases (57.1%) and surgical intervention in 3 cases (42.9%), including amniodrainage (1, 33.3%) and laser cord occlusion (3, 100.0%). Fig.1

Conclusions

One in two monochorionic diamniotic pregnancies develop complications specific to this type of gestation. Timely diagnosis and treatment are often delayed due to late admission to a tertiary care center where proper monitoring and surgical interventions can improve fetal survival.

Outcomes in Monochorionic Diamniotic Twin Pregnancies (MCDA)

General Data

- Total MCDA pregnancies identified: 360
- Expected fetuses: 720
- Live births: 618 (85.8%)

Detailed Outcomes

Complication	Cases n (%)	Overall survival	Survival details	Classification / Staging	Treatment
TTTS (Twin-to-Twin Transfusion Syndrome)	53 (14.7%)	62.26%	One survivor: 16 (30.2%) Both survivors: 25 (47.2%) At least one survivor: 77.3%	Quintero: I (3, 5.7%), II (17, 32.1%), III (18, 34.0%), IV (13, 24.5%), V (2, 3.8%)	Expectant: 9 (17%) Surgical: 44 (83%) → Amniodrainage (11, 25%), Cord laser occlusion (5, 11.4%), Selective laser photocoagulation (28, 63.6%)
sIUGR (Selective Intrauterine Growth Restriction)	124 (34.4%)	95.2%	One survivor: 8 (6.5%) Both survivors: 114 (91.9%) At least one survivor: 98.4%	Type I (83, 66.9%), II (21, 16.9%), III (20, 16.1%)	Expectant: 121 (97.6%) Surgical: 3 (2.4%) → Cord laser occlusion (3, 100%)
TAPS (Twin Anemia-Polycythemia Sequence)	1 (0.3%)	50%	One survivor: 1 (100%)	Stage 5 (1, 100%)	Expectant: 1 (100%)
TRAP (Twin Reversed Arterial Perfusion Sequence)	7 (1.9%)	28.6%	—	—	Expectant: 4 (57.1%) Surgical: 3 (42.9%) → Amniodrainage (1, 33.3%), Cord laser occlusion (3, 100%)

Fig. 1. Perinatal results in monochorionic diamniotic pregnancies