TIMING OF DELIVERY IN MULTIPLE GESTATIONS

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17 women in the induction group and 19 in the expectant management group. Women with both uncomplicated dichorionic and monochorionic pregnancies and a cephalic first twin were randomized at 37 weeks to either labor induction or expectant management.

No differences were apparent in:
- Birthweight
- Apgar score
- Cesarean delivery rate
* no fetal deaths occurred in either group

235 women with uncomplicated dichorionic or monochorionic diamniotic twins were randomized to delivery at 37 weeks (n=116) versus at or after 38 weeks (n=119). No difference was reported in any other individual infant outcome, nor were differences found in maternal outcomes or mode of delivery. The difference in mean birthweight between groups was statistically significant (2.74 kg vs. 2.83 kg in the 37-week vs. the greater than 38-week groups).

The prospective risk for stillbirth in twins equaled that of postterm singletons by 36 to 37 weeks’ gestation

Kahn B, Lumey LH, Zybert PA, et al.  
Prospective risk of fetal death in singleton, twin, and triplet gestations: implications for practice.  
The fetal death rate at 39 weeks’ gestation in a twin pregnancy exceeded that of a post-term singleton pregnancy.

Twins at 37 to 38 weeks gestation had stillbirth rates equivalent to those of post-term singletons.

Elevated risk of:

- Preterm labor
- TTTS and TAPS
- Selective IUGR
- Higher risk of stillbirth
Reviewed 151 uncomplicated Monochorionic pregnancies. The patients underwent ultrasound evaluation for fetal growth, amniotic fluid, and UA Dopplers every 2 weeks.

The study reported a prospective risk of stillbirth after 32 weeks of 4.3% (1 in 23).

Meta-analysis, 119 cases, 9 studies
The risk of stillbirth per monochorionic diamniotic pregnancy at 32, 34, and 36 weeks of gestation to be 1.6%, 1.3%, and 0.9%, respectively


Fiona Chenong at el
Prospective risk of stillbirth and neonatal complications in twin pregnancies:
systematic review and meta-analysis
BMJ. 2016 Sep 6;354:i4353. doi: 10.1136/bmj.i4353s
Recommended:

Delivery of uncomplicated **Dichorionic** twins at 38 weeks
Delivery of uncomplicated **Monochorionic diamniotic** twins between 34 and 37 weeks
• Women with uncomplicated dichorionic–diamniotic twin gestations can undergo delivery at 38 weeks of gestation.

• Women with uncomplicated monochorionic–diamniotic twin gestations can undergo delivery between 34 weeks and 37 6/7 weeks of gestation.

• Women with uncomplicated monochorionic–monoamniotic twin gestations can undergo delivery at 32–34 weeks of gestation.
MODE OF DELIVERY
A number of factors must be considered when determining the mode of delivery for patients with multifetal gestations

* Gestational age
* Estimated weights of the fetuses
* Their positions relative to each other

* The availability of real-time ultrasound on the labor floor and in the delivery room
* The ability to monitor each twin independently
No clear benefit to routine cesarean delivery of vertex-vertex twins has been found in the literature, including VLBW deliveries.

The presentation of the second twin may change in 5% to 10% of cases after delivery of the presenting twin.
Nonvertex Presenting Twin

Twin pregnancies with a nonvertex presenting twin are nearly always managed by cesarean delivery.
When the second twin is non-vertex after delivery of the first twin, the two options for vaginal delivery are breech extraction or external cephalic version (ECV).

ECV has been shown to be associated with more delivery complications and higher rates of cesarean delivery than breech extraction.

Depressed Apgar scores and increased perinatal mortality rates were associated with vaginal breech delivery of the second twin.

However, breech extraction of a second twin is a safe and appropriate option if the EFW is more than 2000 g.

No differences in neonatal outcomes and no cases of birth trauma or neonatal death.

Maternal febrile morbidity was greater in the cesarean delivery group.

No evidence supported cesarean delivery for non-vertex second twins who weighed more than 1500 g.

Retrospective cohort study of 758 consecutive twin sets at more than 35 weeks’ gestation with a cephalic-presenting twin.

The neonatal composite morbidity for the second twin did not differ between planned cesarean and planned vaginal delivery.

Retrospective cohort of 287 twin pregnancies.

All non-vertex second twins underwent immediate breech extraction, and all non-engaged vertex second twins were delivered by immediate internal podalic version and subsequent breech vaginal delivery.

No difference in the rates of 5-minute Apgar scores lower than 7 or a cord pH lower than 7.2 between the planned vaginal delivery (n = 130) and planned cesarean delivery groups (n = 157).

Multicenter prospective study

971 pregnancies, 441 (45%) were deemed to be appropriate for trial of labor

338 (77%) had a successful vaginal delivery of both twins: Breech extraction of the second twin was performed in 29% of those 338 successful vaginal deliveries

No differences were found in perinatal outcomes by planned mode of delivery.

Multicenter, multinational study

Randomized 2804 women pregnant with diamniotic twin sand a cephalic-presenting first twin

Between 32 weeks 0 days and 38 weeks 6 days gestation to either planned cesarean or planned vaginal delivery.

No difference in the primary outcome between the planned cesarean delivery and the planned vaginal delivery groups, nor were differences in maternal morbidity found between the groups.

No difference was found in the primary outcome based on the presentation of the second twin (cephalic vs. noncephalic). When the data were analyzed by birth order, second twins did have a higher risk of the primary outcome (OR, 1.9; 95% CI, 1.34 to 2.69); however, cesarean delivery was not protective.

Both twins vertex (40%)

- Trial of labor provided there are no obstetric indications for cesarean delivery

Twin A vertex, twin B nonvertex (40%)

- Trial of labor and vaginal delivery is appropriate if:
  - EFW > 1500 g (some would suggest 1800-2000 g) and < 3500 g
  - Twin B’s EFW is not ≥ 20% larger than Twin A
  - Appropriate obstetric, anesthesia, and pediatric personnel are available, and patient desires vaginal delivery

Twin A nonvertex (20%)

- Cesarean delivery