Twin pregnancy
Some practical aspects

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TWIN PREGNANCY

1 – Diagnosis corionicity

2 - Evaluation membranes and cords

3 – Prenatal diagnosis

4 - Main Risks and measures to prevent
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Dating pregnancy: greatest CRL
(early restriction can happen, but not early accelerated growth)

A: CRL 64

B: CRL 70

Discordance: 8.6%
(LCC1 - LCC2/LC 1 x 100)

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Combined test in twins
(maternal age + (PAPP-A y fβ-hCG)+NT)

First choice
DC: individual risk
DR 75-83% (T21)
(Chasen et al AJOG 2007)

Lower FPR
(Goncé et al., Prenat Diagn 2006; Chasen et al., AJOG 2007)

MC: average risk
769 MC pregnancies
6 cases T21
(Vandecruys et al., 2005)
Invasive procedures

DC
- CVS: both
- Amnio: 2 sacs (1-2 punctures)

MC
- CVS: one sampling
- Amnio: 2 punctures

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TWIN PREGNANCY

IUGR

PREMATURITY

MALFORMATIONS
TWIN PREGNANCY

Incidence of malformations per fetus

1. MC > BC > single
2. MC = BC > single
3. MC = BC = single
26 weeks

<table>
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<tr>
<th></th>
<th>Twin 1</th>
<th>Twin 2</th>
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<tbody>
<tr>
<td>PFE (gr.)</td>
<td>p3</td>
<td>p60</td>
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</table>

Incidence: 10%

Management?
1. Emergency CS
2. CS post-corticoids
3. Nuevo control en 24hrs
4. Seguimiento semanal
Twins
Mean GA@delivery: 36-37 w
Delivery <32w: 10%
Interventions to reduce prematurity in twins
NO EFFECT SO FAR

A trial of 17 alpha-hydroxyprogesterone caproate to prevent prematurity in twins.
Rouse DJ, Caritis SN, Peaceman AM, et al.

Progestosterone for the prevention of preterm birth in twin pregnancy (STOOPIT)

Perinatal outcome in women treated with progesterone for the prevention of preterm birth: a meta-analysis.
Sotiriadis A, Papatheodorou S, Makrydimas G.

Twins: increased perinatal death (RR 1.551), RDS (RR 1.218) and adverse outcome (RR 1.211). (Also reported in triplets
Combs CA, AJOG 2010)

Vaginal progesterone to prevent preterm birth in multiple pregnancy: a randomized controlled trial.

Prophylactic Cerclage in the Management of Twin Pregnancies.
Roman AS, Saltzman DH, Fox N, Krauser CK, Istwan N, Rhea D, Rebarber A.
Am J Perinatol. 2013 Jan 9. [
### Gestación bicorial

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<tr>
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### Gestación monocorial

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Twin Reverse Arterial Sequence

- Acardias/Acephalus
- Arterial flow from normal twin
  - 1 anastomosis A-A + 1 anastomosis V-V
  - no own placenta
- Incidence: 1% MZ twins
- 30-50% death normal “pump” twin
  - Cardiac failure, hydrops
  - Severe polyhydramnios
MONOCHORIONIC TWIN PREGNANCY
INTERFETAL ANASTOMOSES

Discordance in AV/VA flow

Chronic/subacute unbalanced transfusion
TTTS
TAPS

Discordance in placental territories
sIUGR

High risk of hemodynamic accident
High risk of fetal death

Discordance in fetal defect

High risk of fetal death

Acute feto-fetal transfusion
Monitoring of monochorionic twin pregnancy

3 stages

12

**DIAGNOSIS OF CHORIONICITY**
*Evaluation of risk* (Anatomy, NT + DV + AC + folding)

14 to 28

**SEVERE COMPLICATIONS**
*(mostly managed by intrauterine therapy)*

- TTTS - Early sIUGR – Discordant malformation
  *Close follow-up and early diagnosis & management*

28

**LATE COMPLICATIONS**
*(mostly managed by elective delivery)*

- Late TTTS – Late sIUGR - TAPS - Single IUFD
  *Close follow up and elective delivery*

30+

**BIOMETRY + DOPPLER**
12
14
16
18
20
22
24
26
30
32
34
36

**AC + AF ASSESSMENT**

**Elective delivery 36-37s**
Diagnostic criteria of TTTS


**POLYHYDRAMNIOS + ENLARGED BLADDER**

$(> 8 \text{ cm} < 20\text{w} - > 10 \text{ cm} < 26\text{w})$

**OLIGO-ANHYDRAMNIOS + COLLAPSED BLADDER**

$(< 2 \text{ cm})$
COMPLICATIONS OF MONOCHORIONIC PREGNANCY

- Discordant placental territories
- Selective IUGR
Selective reduction
DICHORIONIC PREGNANCY

- Miscarriage: 5%
- Delivery <33w: 6%

12 wks

- Miscarriage: 14%
- Delivery <33w: 20%

20 wks

>28-30w?

Success nearly 100%
Shalev 99, Lipitz 96

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TWIN PREGNANCY

1 – Diagnóstico corionicidad, evaluación membranas y cordones

2 – Riesgo malformaciones

3 – MC: descartar complicaciones frecuentes

4 – Medición cérvix