selective IUGR II and III

Active management

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www.fetalmedicinebarcelona.org
1. Diagnosis and types

2. Expectant vs active management

3. Results with Cord Occlusion

4. Conclusions
1. Diagnosis and types

2. Expectant vs active management

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4. Conclusions
MC twins: apparent discrepancy in AF and/or fetal size

Algorithm for differential diagnosis

- AF: > 8 cm (> 10 cm) / < 2 cm
  - Clearly discordant bladders
  - no

- EFW <P10 (+/- disc 25%)
  - yes
    - TTTS
  - no
    - • discordant for AF
    - • discordant for EFW
    - Nothing for the moment
      - Close surveillance

Gratacos et al. Fetal Diagn Ther 2012
MC-sIUGR and UA Doppler in the IUGR fetus

No change in Doppler pattern from diagnosis (≈20w) to delivery
Lee 04, Vanderheyden 05, Gratacós 04, 07

Type I
Type II
Type III

Normally good prognosis

GA @ delivery 29-32 weeks
Survival 50-65%
Neurological damage 10-30%

Quintero 03, Gratacós 04, Vanderheyden 05, Huber 06, Ishii 09

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SIUGR is not a unique disease as TTTS

DETERMINANTS OF MANAGEMENT

Severity

Early GA / OligoH / Discordance / REDF / DV-

Technical issues

Expectant Cord Occlusion Laser

wishes

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Decision tree for counseling in sIUGR

1: DIAGNOSIS
sIUGR + no TTTS

2: sIUGR TYPE

I

II

III

3: SEVERITY
GA<24w /Disc >35% / OligoH / REDF / DV>p95

NO

YES

Expectant + Follow-up 1/w

Active Management

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1. Diagnosis and types
2. Expectant vs active management
3. Results with Active Management
4. Conclusions
# CORD OCCLUSION IN sIUGR (n=136)

## Pregnancy Outcomes

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<table>
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<tbody>
<tr>
<td>Delivery &lt; 32 w</td>
<td>21.9 % (30/136)</td>
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<tr>
<td>GA @delivery (w)</td>
<td>35.5</td>
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<tr>
<td>Survival</td>
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<tr>
<td>AGA (at least 1)</td>
<td>91.1 % (124/136)</td>
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<tr>
<td>Overall Fetuses</td>
<td>45.6% (124/272)</td>
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*Parra (n=90)  
*Chalouhi (n=24)  
*Bebbington (n=22)

*Bebbington et al: Estimate.*

[Graph showing GA @ delivery and Survival AGA percentages for different studies.]

[www.medicinafetalbarcelona.org/](http://www.medicinafetalbarcelona.org/)
# Pregnancy Outcomes

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<tbody>
<tr>
<td>Delivery &lt; 32 w</td>
<td>46.4%</td>
<td>(89/192)</td>
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<tr>
<td>GA @delivery (w)</td>
<td>32.4</td>
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<tr>
<td>Survival</td>
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<tr>
<td>At least one</td>
<td>72.8%</td>
<td>(140/192)</td>
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<tr>
<td>AGA</td>
<td>69.9%</td>
<td>(134/192)</td>
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<tr>
<td>SGA</td>
<td>36.9%</td>
<td>(71/192)</td>
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<tr>
<td>Overall</td>
<td>54.7%</td>
<td>(205/384)</td>
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*Bebbington et al: Estimate.*
Overall Survival
46% vs 54%

Survivors per 100 fetuses

Delivery < 32 w
Survival AGA (%)
Survival SGA (%)

CO (n=136 - Parra, Chalouhi, Bebbington)
Laser (n=192 - Quintero, Gratacos, Chalouhi, Peeva)
1. Clinical forms

2. Expectant vs active management

3. Results with Cord Occlusion

4. Conclusions
Conclusions
Management of sIUGR II and III in MC twins

1. Expectant management is associated with poor survival and neurological outcome

2. Active management in sIUGR protects normal fetus but worsens that of IUGR.

3. Final decision: balance between severity + parents’ wishes (+ rarely technical issues).

4. Types of active management:
   (a) C.O.: >90% AGA, >90% pregnancies, 22% PTB
   (b) Laser: 70% AGA, 70% pregnancies, 46% PTB

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