MULTIFETAL GESTATION – DCDA TWINS

Week 33

Prepared by: Hemangi P Shukla, DO,MS

Homework Assignment:
SASGOG Pearls of Excellence: Antepartum Management of Dichorionic/Diamniotic Twins
https://www.exxcellence.org/list-of-pearls/antepartum-management-of-dichorionicdiamniotic-twins/
LEARNING OBJECTIVES

• To review how multifetal gestation is diagnosed and classified

• To understand the maternal and fetal impacts of a DCDA twin gestation

• To be comfortable managing the antenatal care of a patient with a DCDA twin gestation

• To review the recommendations regarding timing and route of delivery for a DCDA twin gestation
CASE VIGNETTE

• A 42y G2P0010 woman at 11 weeks EGA by LMP presents for new prenatal care visit. She reports frequent nausea and vomiting, and has only been able to tolerate fluids and occasionally crackers. She has no other complaints.

• She was seen in the ED at an outside hospital one month ago for spotting. She had blood drawn, but ended up leaving before the ultrasound was done because she had been waiting several hours. She got a call from the ED advising her to follow up because her pregnancy hormone level was unusually high, but decided to wait until this appointment.
FOCUSED HISTORY

What elements of this patient’s history are most relevant?

• POBH: 1 sab (managed with D&C for r/o molar pregnancy)
• PGYN: Irregular menses; No STI/Cysts/Fibroids; No abnormal paps
• PMH: Denies
• PSH: D&C x 1
• Meds: PNV
• All: NKDA
• Soc: No toxic habits; Lives with her husband; Accepts blood products
• FHx: No hx gyn cancers; No hx DM or HTN; No hx twins
PERTINENT PHYSICAL EXAM FINDINGS

What elements of the patient’s physical exam are most important?

• VS: P 76          BP 118/72          Wgt: 65kg          Hgt: 160cm          BMI: 25
• Cor:   Regular rhythm, no M
• Pulm:   CTAB b/l
• Abd:   Soft, NT/ND, +BS x 4Q
• Pelvic: Vulva: Normal external female genitalia; No lesions
          Vagina: Healthy-appearing mucosa, No discharge
          Cervix: Parous os; L/C/P
          **Uterus: NT, ~12-14wk size, anteverted**
          Adnexae: No mass/tenderness b/l
• Ext:   No calf tenderness b/l; no edema b/l; +1 DTR b/l
What is your differential diagnosis?

• Multifetal gestation
• Molar pregnancy
ULTRASOUND

You do a bedside ultrasound and see this image. What is your diagnosis?

• Dichorionic-Diamniotic twin gestation
DIAGNOSIS

What is the best ultrasonographic characteristic to diagnose a dichorionic gestation?

- Twin peak sign (also called lambda or delta sign)

Can you see the triangular projection of tissue with placenta-like echogenicity extending beyond the chorionic surface of the placentae?
What is the optimal time for accurate assessment of chorionicity?

- Late first or early second trimester

Is chorionicity the same as zygosity?

- No

25-30% of monozygous twins are DCDA gestations.
What parameters are used to classify multifetal gestations?

- Placenta(s)
- Amniotic sac(s)

What are these classifications?

<table>
<thead>
<tr>
<th>Placenta</th>
<th>Amniotic sac(s)</th>
<th>Designation</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>2</td>
<td>Dichorionic-diamniotic (DCDA)</td>
</tr>
<tr>
<td>1</td>
<td>2</td>
<td>Monochorionic-diamniotic (MCDA)</td>
</tr>
<tr>
<td>1</td>
<td>1</td>
<td>Monochorionic-monoamniotic (MCMA)</td>
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</tbody>
</table>
PREDISPOSING FACTORS

What factors are associated with an increased likelihood of twin gestation?

• Prior history of multifetal gestation
• Family history
• Advanced maternal age
• Assisted reproductive technology
IMPACT ON PREGNANCY

Which maternal and fetal outcomes are more likely to occur with a DCDA twin gestation?

• Hyperemesis
• Preeclampsia
• Gestational diabetes
• Preterm birth
• Cesarean delivery
• Postpartum hemorrhage
• Congenital anomalies
• Acute fatty liver of pregnancy
• Postpartum depression
What method of aneuploidy screening allows each fetus to be screened independently in a multifetal gestation?

- **Nuchal Translucency**

What percentage of Down Syndrome pregnancies are identified in twin gestations using a traditional First Trimester Screen?

- **75 – 85%**

Is NIPT currently recommended in women with multifetal gestation?

- **No** (limited evidence to recommend use with multifetal gestations)
In addition to routine prenatal vitamins and iron, are there any other medications you would recommend for patients with multifetal gestation?

- Low dose ASA

The occurrence of hypertensive complications with twin gestations is nearly double that of singletons.
What is the recommended ultrasound schedule for DCDA twin gestations after a scan at 18-22 weeks to evaluate fetal anatomy, amniotic fluid, placentae, & growth?

- **Growth scan every 4 weeks** (in the absence of growth restriction or other pregnancy complications)
- **Weekly** antenatal fetal surveillance starting at 36 weeks
- There are no evidence-based recommendations on the frequency of fetal growth scans after 20 weeks of gestation; however, it seems reasonable that serial u/s be performed every 4-6 weeks
- **Antenatal fetal surveillance** generally is reserved for women with DCDA twin gestations complicated by maternal/fetal disorders requiring antepartum testing
At what gestational age should patients with uncomplicated DCDA twin gestations undergo delivery?
• 38 weeks

What is the optimal route of delivery in patients with a diamniotic twin gestation with presenting fetus in a vertex position?
• Vaginal
  • What is the earliest gestational age beyond which this is a reasonable option to be considered?
    • 32 weeks

Can a patient with one prior LTCS safely consider TOLAC?
• Yes (if an otherwise appropriate candidate for twin vaginal delivery)
Study showed that non-Hispanic black women carrying twins have an elevated risk for preterm birth and earlier delivery compared to non-Hispanic white women.

The study also noted that while preterm birth disparities for singleton pregnancies have been well-characterized, the relationship in twin pregnancies is understudied.

- Efforts must be made to improve access and early entry into prenatal care.
- There needs to be a stronger focus on studying health-care disparities associated with race beyond the scope of singleton pregnancies to allow for more targeted efforts to close such gaps.
BBonDCDAcounseling

Description: DCDA plan and counseling

The patient was counseled on her diagnosis of a dichorionic-diamniotic twin pregnancy. It was explained in plain language that this means there is a placenta and amniotic sac individual to each fetus. She was advised that delivery will be planned for 38 weeks gestation. The following was discussed regarding prenatal management, including plans for ultrasound and delivery.

- [ ] ASA 81 mg daily (initiate between 12-28w, optimally start <16w)
- [ ] Fetal growths q4 wks starting at 24 wks
- [ ] Serial cervical lengths from 16-24w q2w
- [ ] Weekly testing after 36 wks
- [ ] MOD counseling, including risks of breech extraction, combined delivery
- [ ] Delivery between 38 to 38+6 wks
- [ ] Delivery at CHONY
CODING AND BILLING

- **O30.90**  Multiple gestation, unspecified, unspecified TM
- **O30.009** Twin pregnancy, unsp number placenta & sacs, unsp TM
- **O30.041** Twin pregnancy, dichorionic/diamniotic, first trimester
- **O30.042** Twin pregnancy, dichorionic/diamniotic, second trimester
- **O30.043** Twin pregnancy, dichorionic/diamniotic, third trimester
- **O30.049** Twin pregnancy, dichorionic/diamniotic, unsp trimester
EVIDENCE

• References


