

# 3rd Trimester Case Study

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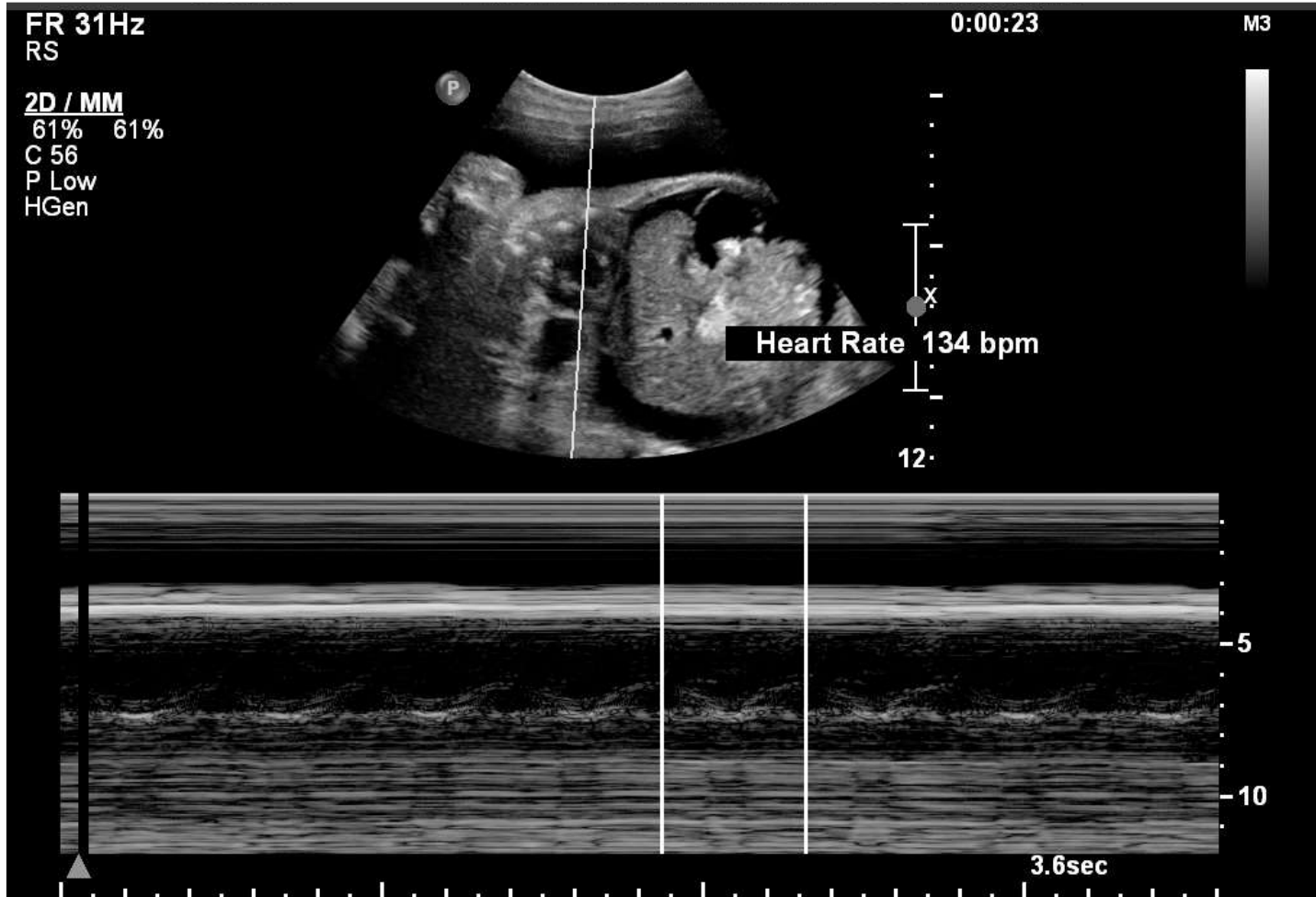
Providence Hospital Southfield

Ultrasound Student

# History

- 32 y/o
- G2 P1 A0
- SGA and growth
- 32 2/7 wks
- Pt had normal 18 wk scan

# Normal FHR





# Abdominal Ascites

- Ascites is always abnormal
- Fluid collects between two leaves of the unfused omentum
- Common sonographic finding in hydrops
- When associated with hydrops, integumentary edema will often be observed



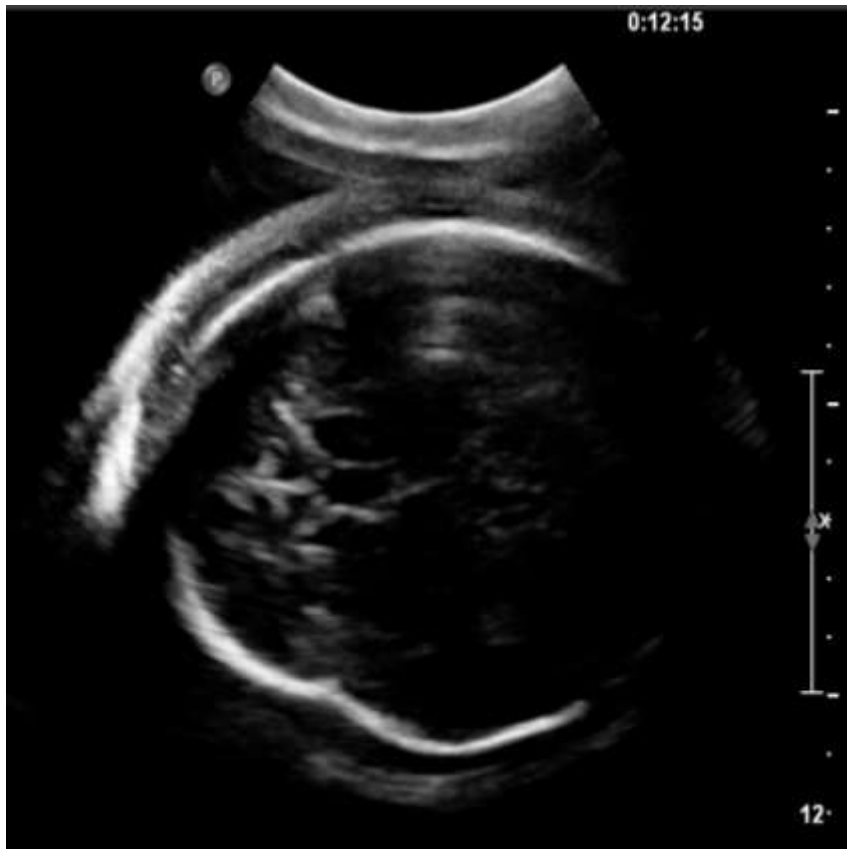
# Abdominal Ascites



# Subcutaneous Edema



# Subcutaneous Edema



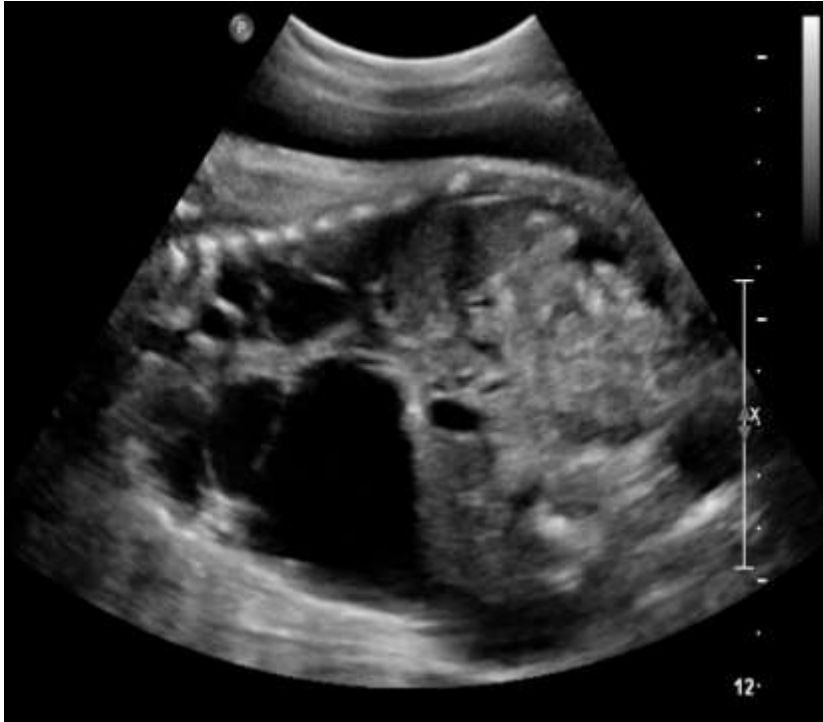
- When seen in the fetus, commonly associated with hydrops fetalis
- Soft tissue wall thickening of  $>5\text{mm}$
- Often seen with polyhydramnios



# Frontal Bossing



# Bilateral Lung Hypoplasia w/multiple cystic masses



# Pulmonary Hypoplasia

- Caused by decrease in number of lung cells
- Results in small, inadequately developed lungs
- Decrease in lung cells can be caused by masses in thoracic cavity, such as with CCAM

# Cystic lung mass



# Con't

**SAG**



**TRANS**



Con't



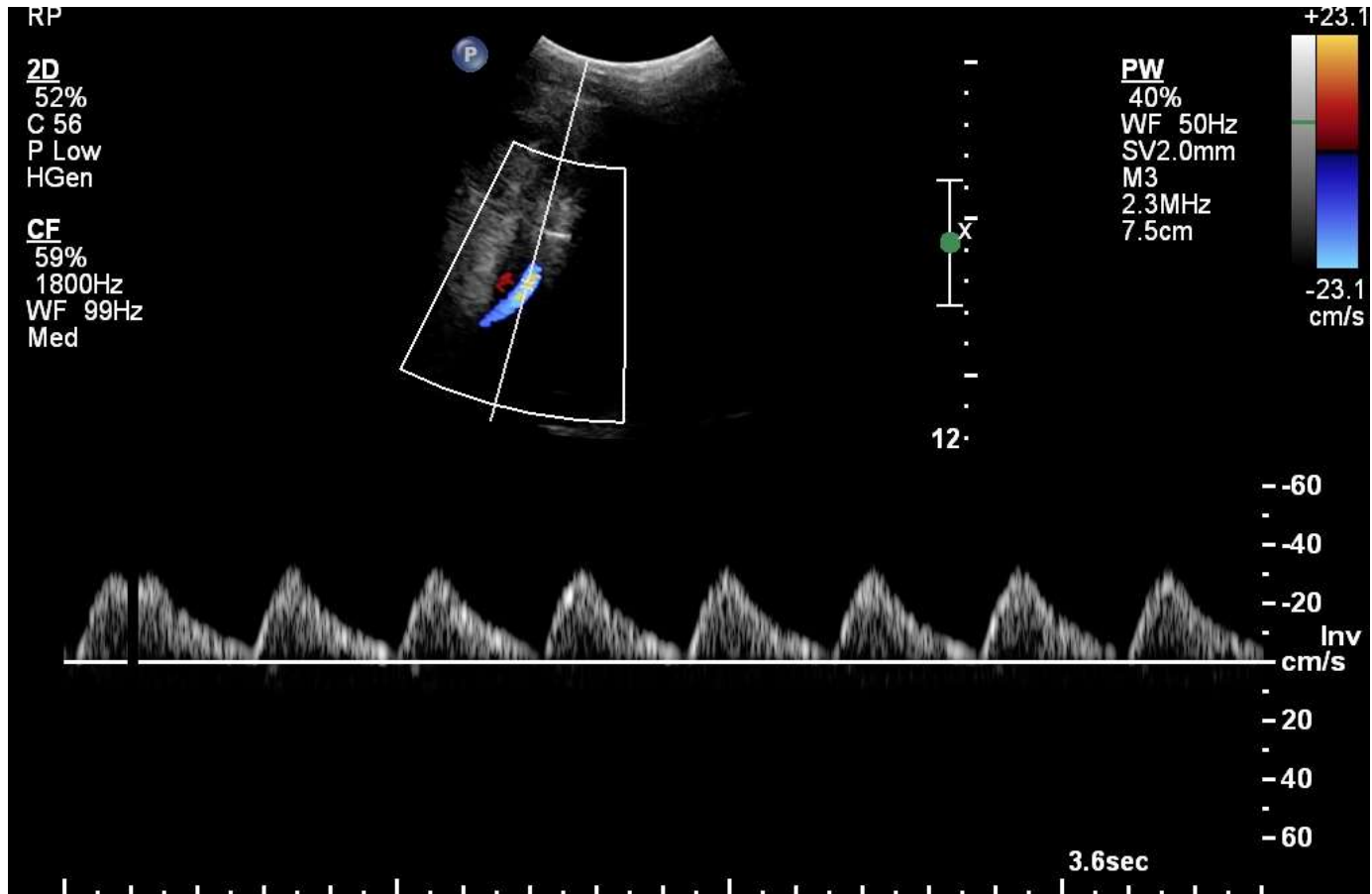
Largest cyst: 5.6 x 3.8 x 4.6 cm

# Polyhydramnios

- Max Vertical Pocket: 106 mm
- AFI: 274 mm



# Absent End Diastolic Flow





# LGA due to edema

- BPD: 89.5 mm
- OFD: 117.7 mm
  - HC: 336.4 mm

= GA: 38 4/7 (>97%)

- APD: 100.3 mm
- TAD: 104.5 mm
  - AC: 343.4 mm

**Overall >97% Baby**

- FL: 56.6 mm

= GA: 29 5/7 (10%)

# Outcome

- Went into surgery for lung cysts
- Neonate did not survive due to hemorrhage
- No diagnosis was made

# Differential Diagnosis: CCAM

- **Congential Cystic Adenomatoid Malformation**

Def: abnormality in the formation of the bronchial tree with secondary overgrowth of mesenchymal tissue from arrested bronchial development

# CCAM: 3 Types

- Type 1: Macrocytic
  - One of more large cysts replace lung tissue
  - Single or multiple cysts measuring  $>2$  cm
- Type 2: Macrocytic with microcystic component
  - Lesions consists of multiple small cysts (less than 1 cm)
  - Associated with chromosome abnormalities is 25% of cases
- Type 3: Microcystic
  - Large, bulky lesions appearing as echogenic masses in lung lobe
  - Hydramnios may be seen second to esophageal compression, which prevents normal fetal swallowing

# Con't

- Determining the type of CCAM is crucial as the prognosis varies depending on the type of lesion
- Type 1 lesions have favorable outcomes
- Type 2 and 3 lesions have poor prognoses

# CCAM Type I

Textbook example

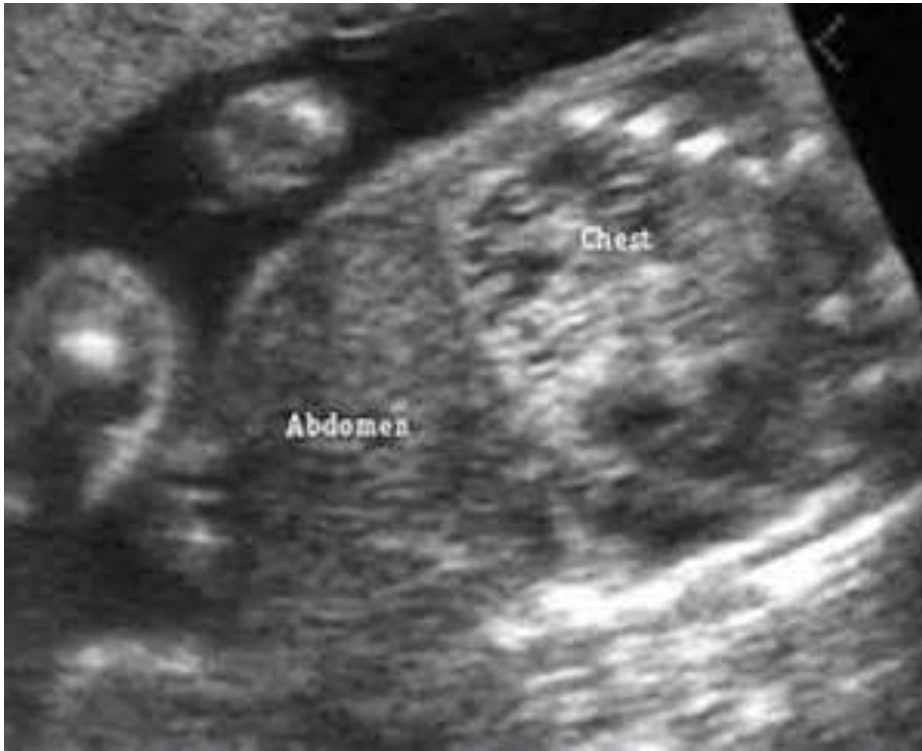


Our patient



# CCAM Type II

Textbook example

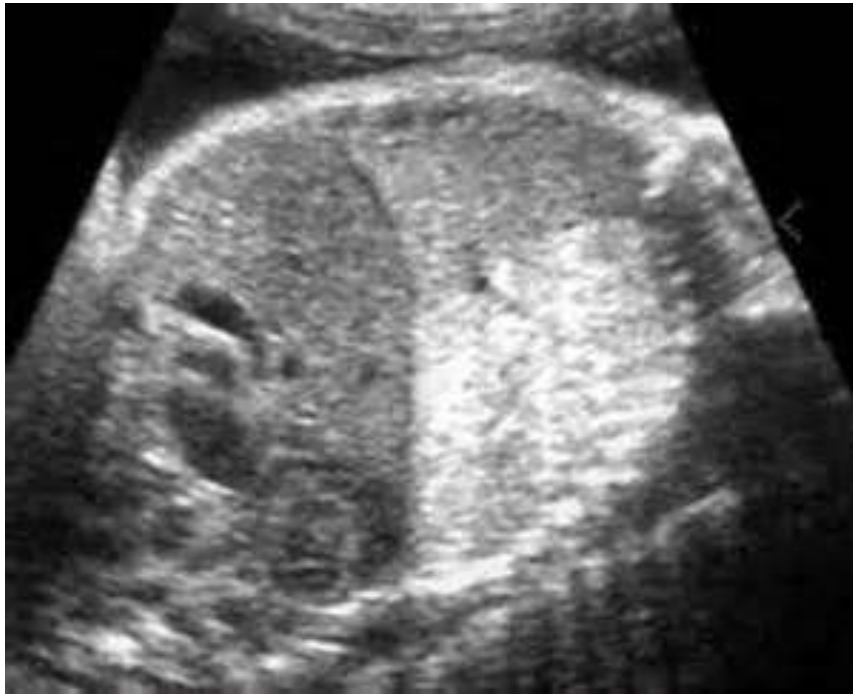


Our patient



# CCAM Type III

Textbook example



Our patient





# Works Cited

"Congenital Cystic Adenomatoid Malformation." *Obstetrics and Gynecology*. OB-GYN CMU, 13 Nov. 2010. Web. 17 Feb. 2015. <[http://www.medicine.cmu.ac.th/dept/obgyn/2011/index.php?option=com\\_content&view=article&id=67:ccam&catid=43&Itemid=405](http://www.medicine.cmu.ac.th/dept/obgyn/2011/index.php?option=com_content&view=article&id=67:ccam&catid=43&Itemid=405)>.

Hagen-Ansert, Sandra L. "The Fetal Thorax." *Textbook of Diagnostic Ultrasonography*. 6th ed. Vol. 2. St. Louis, Mo.: Mosby Elsevier, 2006. 1228-1237. Print.

Subih, D. (2013, May 10). Hydrops Fetalis. Retrieved February 17, 2015, from <http://emedicine.medscape.com/article/403962-overview>