

Congenital TB –Case Presentation

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Learning Objectives

- Review potential poor outcomes during pregnancy if untreated tuberculosis
- Review definition of Congenital Tuberculosis
- Case Study
 - Missed opportunities
 - Collaboration



TB During Pregnancy

- TB disease during pregnancy remains associated with a substantially elevated poor maternal and fetal outcomes
 - Threefold increase in maternal morbidity
 - Ninefold increase in miscarriage
 - Twofold increase in preterm birth and low birthweight
 - Sixfold increase in perinatal death

Screening of TB during perinatal period

- The American College of Obstetricians and Gynecologists, The American Academy of Pediatrics, and the Centers for Disease Control and Prevention (CDC) recommend screening all women who are at high risk for TB at the initiation of antenatal care.

Treatment During Pregnancy

- For most pregnant women, treatment for latent TB infection can be delayed until 2-3 months post-partum to avoid administering unnecessary medication during pregnancy. However, for pregnant women who are at high risk for progression from latent TB infection to TB disease, especially those who are a recent contact of someone with infectious TB disease, treatment for latent TB infection should not be delayed on the basis of pregnancy alone, even during the first trimester.
- CDC

Time Line of Report- Notice Anything Wrong?

- **7/4/2021:** Twins born at local hospital
- **8/6/2021:** Twin girl passes away
- **8/17/2021:** Post-mortem findings consistent with TB. Miliary pattern on lung tissue, AFB smear positive. Granulomatous findings.
- **8/19/2021:** Report of exposure to Baby boy, in notes from provider it was noted that the twin sister appeared to have findings consistent with congenital TB in post-mortem findings.
- **9/21/2021:** Received a call from Dr. Jeff Starke inquiring CDC

MOM

- 38 YO female from Nigeria
- Moved from Nigeria as a child – 10 years of age.
- Moved to England as a young adult where she met her husband.
- Reports prior diagnosis of LTBI- no records available to confirm
- Underwent fertility treatments to become pregnant- reports frequent prenatal care since children conceived using IVF
- Moved back to Nigeria to be near husband's family for pandemic- Denies any sick contacts. Reports wearing mask at all times
- Came to US to visit her mother and went into premature labor due to rupture of membranes

Timeline for Mom:

- Went into preterm labor 7/4/2021 and delivered vaginally at 30 weeks gestation
- 7/12/21: CXR before discharge “No acute cardiopulmonary findings”
- 8/18/21: Took Baby Boy to 1st ID appointment after confirmation of TB findings in Baby Girl post mortem
- 8/19/21: Baby Boy reported as contact in need of LTBI to a neighboring health department
- 8/22/21: Assigned to CI nurse for an “associate investigation”
- 8/25 and 8/26- Patient reported and contact by Health Department for interview and home visit- patient did not answer
- 8/27/21: Initial visit made. Sputum collected.
- 8/30/21: Patient reports “having migraines over the weekend”
- 9/1/21: Patient goes to a local ER for migraines: DX: Tension Headaches.
- 9/2/21: Patient reports migraines, decreased appetite, fever, chills, neck and back pain.
- 9/7/21: Patient admitted with DX of meningeal TB and lacunar stroke.

What is Congenital Tuberculosis

An infection that develops as a result of an encounter between an infant and its mother with tuberculosis during the intrauterine period or during the normal birth process

Baby A

- Born 7/4/21
- Birth weight 1495 gms
- 7/25 Sepsis workup started
- 7/27 Further temp instability, increased tachypnea, cough.
- 7/28 No evidence of viral respiratory illness.
- 7/30 CO2 elevated. E coli in urine culture
- 7/31 Worsening respiratory distress. Intubated
- 8/5 Baby A passed away
- 8/17 Post mortem showed findings consistent with congenital TB

Baby B

- Born 7/4/2021
- 8/19/2021 Received orders to start treatment for LTBI with Rifampin 600 mg daily
- 8/20/21 TST 13mm
- 8/30/21 Started on Rifampin for treatment of LTBI
- 9/14/21 Develops enlarged right side cervical node.
 - US shows 2.7x2.2 right cervical mass c/w necrotic lymph node/abcess
 - Eating well
 - Father reports normal activity
- 9/15/21 Treatment with Rifampin stopped. Orders for RIPE received
- 9/16/21 Started treatment with RIPE
- 9/18/21 Admitted to Texas Children's Hospital
 - CSF Glucose 48mg/dl (45-80) Protein 80mg/dl (15-45) Nucleated cells 6/mm³ (0-5)
- 9/19 and 9/20 Gastric aspirates Negative AFB.
- 9/20/21 Normal MRI of the brain
- 9/21/21 Discharged from hospital on RIPE with steroid taper
- 12/08/21 Family moves to Nigeria

Missed Opportunities



Successes/Wins

- Baby B- Growing and growing
- Mom- recovered limited ability to ambulate, regained bowel control, still struggles with bladder control
- Successful transition to care in Nigeria through collaboration with CURE TB
- Both mom and Baby B in care continuing with TB treatment thru Legos State Health Center.



FORT BEND

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Job Title

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