

# TB and Pregnancy Session: Case Presentation

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# Case

- ▶ ID: Two-week-old, term infant
- ▶ Chief Complaint: Respiratory distress and fever
- ▶ History of Presenting Illness:
  - ▶ Presented to general pediatrician for two-week well infant check-up
  - ▶ Noted tachypnea, and respiratory distress
  - ▶ Sent immediately to a children's emergency department (tertiary referral centre)
  - ▶ In the ER was noted to be febrile (38.4 C), tachypneic (80 breaths/min), normal heart rate, normal oxygen saturation

# Case

- ▶ Full septic work-up (CSF, blood culture, urine culture) completed and empiric broad spectrum antibiotics started
- ▶ Continued to have fever, tachypnea, and tachycardia during admission
  - ▶ Responsive to acetaminophen
- ▶ Nasopharyngeal aspirate: negative for COVID, influenza, RSV
- ▶ Septic work-up: cultures negative

# Case

- CXR interpretation: “Moderate bilateral pulmonary opacifications.”
- Discharged with diagnosis of viral lower respiratory tract infection



# Case

- ▶ Returns to general pediatrician 48 hours post-discharge
- ▶ Nurse in office notes baby is:
  - ▶ Lethargic
  - ▶ Hot to touch (temp 38.1 Celsius),
  - ▶ Tachypneic (> 70 breaths/min)
- ▶ Sent back to the emergency department
- ▶ CXR is repeated

# Case

- Interpretation: “Diffuse bilateral nodular opacities throughout, an atypical infection should be considered.”
- Requires intubation and is sent to the pediatric intensive care unit



# Case

- ▶ The ICU team sends nasogastric aspirates for fungal microscopy and culture and acid-fast bacilli microscopy and culture
  - ▶ Smear positive, *M. tuberculosis* PCR positive
- ▶ QUESTION: How does a two-week-old contract tuberculosis?

# Source Case Investigation

- ▶ Local public health unit is immediately involved
- ▶ Only three adult contacts identified: mother, father, grandparent
  - ▶ From community with ongoing TB transmission
- ▶ Both the mother and father well, normal chest x-rays
  - ▶ Sputum collected
  
- ▶ ? Are we missing something?



# Maternal History

- ▶ 31 yo G9P7 female, from remote indigenous community
  - ▶ New diagnosis of diabetes in pregnancy
  - ▶ Buprenorphine
- ▶ Pregnancy uncomplicated
- ▶ Labor uncomplicated
- ▶ Gestational age= 37+6 weeks
- ▶ APGARS= 9, 9; Birthweight= 3.5 kg (well baby)

# Good Advice

- ▶ A trusted colleague recalls a similar case experience...
- ▶ Mother agrees to go for endometrial biopsy
  - ▶ *M. tuberculosis* PCR positive, smear negative, culture positive