



Disseminated Pre-XDR TB

NAR 2023 - Challenging Case Session - Feb 24, 2023

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Infectious Diseases / Tuberculosis Medicine

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20 yo female from India 'previously healthy'

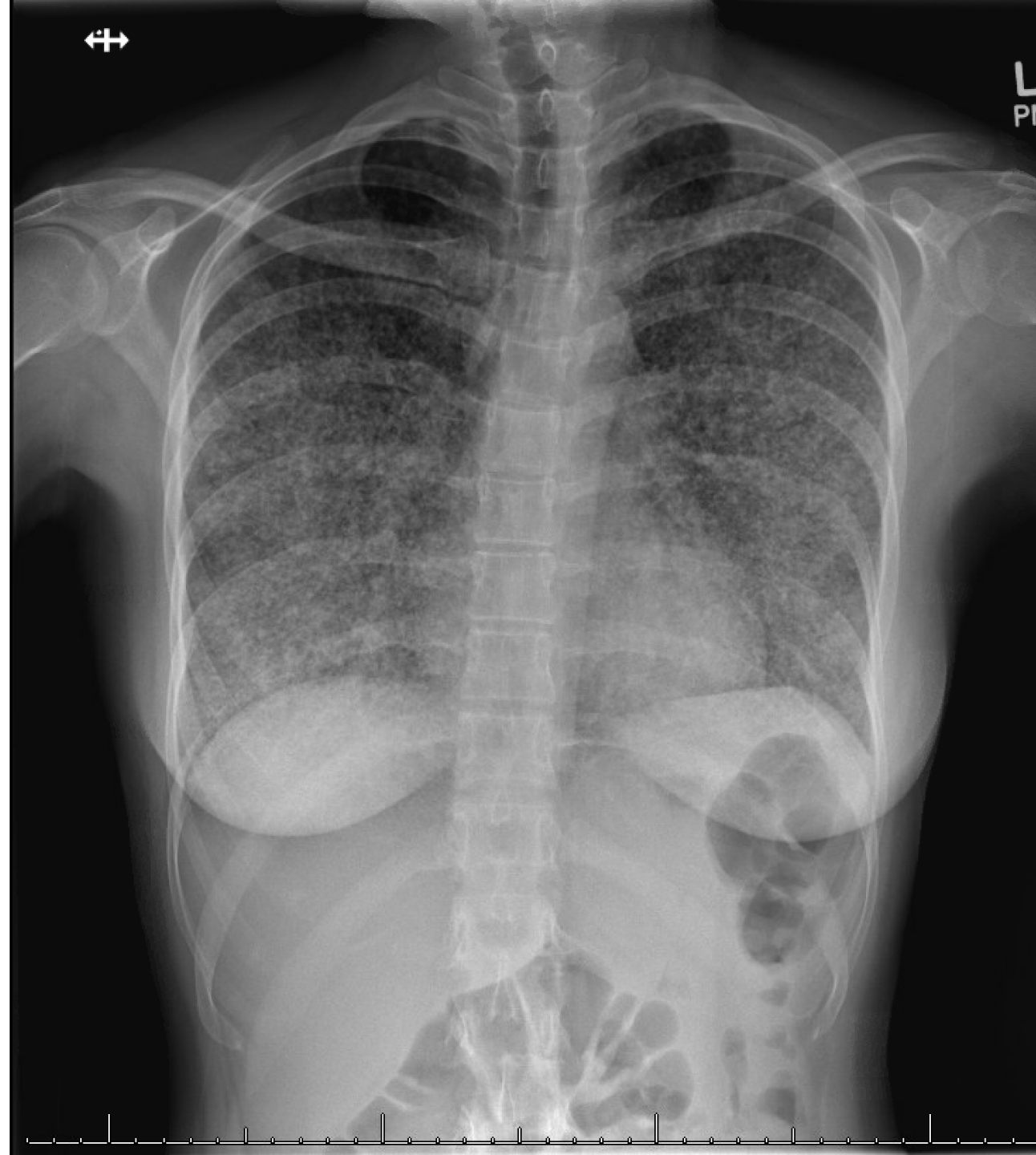
Cough x months, recent 'steroids' via GP
Fever for weeks, worse dyspnea = ER

Hypoxia → respiratory failure = ICU

Collateral:

- In Canada x 6 months = student
- Contact with TB (uncle) 8 month prior
- TB screening (pre-arrival) = "clear"

HIV/HBV/HCV negative, non-diabetic



Admit

June 2022
Wt ~45kg

TB DIAGNOSIS

Sputum AFB +
Xpert + & rpoB mutation
Empiric RIPE + MOXI
ARDS Steroids

Wk 2-4

NEUTROPENIA (<0.5)/ PNEUMOTHORACES

LZD dose reduced
MERO/CLAV stopped
G-CSF
Bilateral Chest Tubes

Drug Susceptibilities (@~wk 6)

Geno/Phenotypic **RESISTANT**

- Rifampin
- Isoniazid (high level)
- Fluoroquinolone
- Ethambutol
- Pyrazinamide

Phenotypic **SUSCEPTIBLE**

- Aminoglycosides
- Linezolid
- PAS

Wk 1

ARDS / QUERY MILIARY TB

Hypoxemic Resp. Failure = ICU

Pre-XDR / TBM

MDDR = RMP/INH/FQ/PZA mutations
CSF = AFB+
Added Dexamethasone/ASA
Regimen Intensified

Mth 2-3

ICU → ward
Wt 43kg

Pre-XDR vs XDR

Month	1	2	3
RMP/INH			
PZA/EMB			
MOXIFLOXACIN	400mg		
MERO- CLAVULIN		2g TID	
LINEZOLID		1200 mg	600mg (TDM ok)
AMIKACIN			
CYCLOSERINE		500mg BID	500 AM / 250 PM
CLOFAZIMINE		100mg OD	
BEDAQUILINE		400 mg OD	200mg TIW
DELAMANID		100mg BID	

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Treatment of pre-XDR TBM...

What drugs?

What doses?

What duration?

What evidence?



OUTCOME & PLAN

Discharged from hospital after 5 months (culture conversion @ ~3mth)

- Clinically well, good drug tolerance (BDQ/CYCLO-B6/PTM/LZD/CLOF)
- Plan 18+ months from CNS conversion (~21mth) of 5-drug regimen

Month	1	2	3	4	5	6	7
RMP/INH							
PZA/EMB							
MOXIFLOXACIN		400mg					
MERO- CLAVULIN			2g TID				
LINEZOLID			1200 mg	600mg (TDM ok)			
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CYCLOSERINE		500mg BID	500 AM / 250 PM		250 mg BID		
CLOFAZIMINE		100mg OD					
BEDAQUILINE		400 mg OD	200mg TIW				
DELAMANID		100mg BID					

It takes a village = Surrey Memorial Hospital ID Team (Denise Werry), BCCDC/NML Mycobacteriology Teams (Inna Sekirov), BCCDC TB Program, Lisa Chen (UCSF Center for TB) and our patient.