

# TB Symposium

TB IN MIGRANT WORKER

Nikki Dolan, RN

Greenbrier County Health Dept

Ronceverte, WV

December 9, 2011

# PATIENT HISTORY

- 24 year old healthy male born in Mexico
- June 27,2003- He arrived in the United States from Mexico
- August 2003- He moved to Greenbrier County, WV and was hired at a local lumber yard
- Lived in apartment complex with group of Hispanic co-workers
- October 2003- Symptoms according to hospital record (cough, night sweats, weight loss, and loss of appetite)

# Continued

- December 2003- Cough worsens
- January 2004- Hemoptysis begins
- January 27, 2004- Patient presented to ER with complaints of GI bleeding and coughing up blood
- January 28, 2004- LHD first notified by ICN at Greenbrier Valley Medical Center of suspected tuberculosis case
- Patient was hospitalized and placed in isolation. PPD was placed
- PPD read 48 hours later and was 17mm

# Physical Exam

- Vitals signs remained stable
- NG tube placed and not draining any blood
- NG tube was discontinued
- Scant amount of hemoptysis while hospitalized
- February 3, 2004- Discharged home. Health Department notified.

# LAB RESULTS

- Alkaline Phosphatase was slightly elevated during treatment
- LFT's remained stable

# TREATMENT COURSE

- January 29, 2004- Daily treatment regimen of INH 300mg, Rifampin 600mg, PZA 1500mg, and Ethambutol 1200mg started in hospital. Treatment regimen ordered for one year.
- February 3, 2004- Patient discharged home
- February 4, 2004- Two nurses from State TB Program (one was translator) and one LHD nurse visited patient at home and explained DOT
- Daily DOT in patients home from time of discharge until April 2, 2004. DOT started three times a week beginning April 5, 2005.

# Continued

- May 28, 2004- Discontinued PZA and Ethambutol. Continued INH and Rifampin.
- January 7, 2005- Patient completed 49 weeks of treatment as ordered.

# RADIOGRAPHIC FINDINGS

- January 28, 2004- Initial chest X-ray
- A cavitory tuberculosis was suspected
- January 28, 2004- CT of the chest showed multiple cavities and lymphadenopathy. TB was a strong consideration
- Chest X-ray findings throughout treatment course gradually improved
- Final X-ray showed almost complete clearing of disease process and no evidence of new active pulmonary infection

# BACTERIOLOGY

- Initial AFB smear on January 28, 2004 was negative, but smear on February 2, 2004 was 1+ positive. This culture was finalized on March 3, 2004 and was confirmed by DNA probe to be *Mycobacterium Tuberculosis*
- Sputums collected every one to two weeks
- March 11, 2004- Had three consecutive negative smears
- April 14, 2004- Final culture reported no AFB found

# Continued

- Drug susceptibility- M. TB was susceptible to all drugs tested

# CONTACT INVESTIGATION

- Patient worked at local lumber yard with a total of 77 employees. High risk contacts identified and tested.
- Total of 20 foreign born tested and 3 Americans.
- 14 foreign born had skin test reaction but only 6 were found to need prophylaxis after evaluated by doctor.
- 3 of the 6 who began treatment completed 9 months of therapy, 2 transferred to South Carolina and 1 was lost to follow-up

# Continued

- 1 American had skin test reaction of 7mm but did not require prophylaxis after evaluated by dr.

# BARRIERS FOUND DURING CONTACT INVESTIGATION

- Language Barrier: All patients were Spanish speaking and did not understand English.
- Patient was concerned of losing his job or being sent back to Mexico because of his illness (Patient threatened to return to Mexico several times during treatment)
- American workers at lumber yard were angry that the patient had potentially infected them
- There was no documented history to assess prior TB status.

# OVERCOMING BARRIERS

- Conference was held at the lumber yard with LHD and all lumber yard employees. This was held to help employees understand the situation and to reassure them that the Health Department was conducting an investigation.
- All questions were answered

# Continued

- The night Supervisor was Spanish speaking and translated for all Spanish speaking patients
- He was very willing to bring patients in for labs, clinic, and X-rays.
- Supervisor administered DOT twice a week at work to LTBI patients
- We still have an ongoing relationship with workplace/supervisor. Test all new foreign born employees

# QUESTIONS

- ???