A Respiratory Infection Returns Case Study

Dana, a 21-year-old college student, was suffering from a persistent cough, fever, and constant fatigue. She was asked whether she had these symptoms in the past and if she had been treated for them at that time. She reported that she had gotten sick with similar symptoms before but never received any treatment. Since she had mild fever, and her chest X-rays were normal, her doctor prescribed streptomycin and cough medicine. Her symptoms improved drastically within a week and, consequently, she decided to stop taking her medication.

After 2 months, she felt ill again. Her symptoms included coughing, loss of appetite, high fever, and night sweats. She said the cough, which had lasted for the past 3 weeks, was accompanied by a blood-stained sputum.

A preliminary diagnosis was made based on the symptoms. Chest X rays, Mantoux PPD test, and an acid-fast stain from a sputum sample were later performed. She also was tested for HIV. Based on the results of the tests and her symptoms, a cocktail of antibiotics, including isoniazid and rifampin, was prescribed. She was instructed to take the antibiotics for 9 months.

* *What disease is described here?*
* *Why might Dana’s symptoms have resurfaced despite the original streptomycin treatment?*
* *Why was it necessary to place Dana on a multidrug treatment?*