A 28-year-old patient, mother of the 15-month-old child, suffered from recurrent infections of respiratory system infections with the productive cough, morning hemoptysis and subfebrile states since beginning of the year 2005. The weight lose was 4 kg. After the failure of repeated treatment with a broad spectrum of antibiotics, she was referred to a ambulancy for tuberculosis and lung diseases in March 2005. By means of computer tomography, bilateral infiltration in the lower lobes of lungs even with a cavity on the right was found. *Mycobacterium mucogenicum* was isolated from one sample of sputum taken on April 15 2005. The four-drugs therapy – clarithromycin + rifabutin + ofloxacin + ethambutol was started. Eight days later, this therapy was changed because of undesirable adverse reaction. The combination of streptomycin + rifabutin + clofazimin + ethambutol, and two months later clofazimin + ethambutol, continued up the total length 1 year from the beginning of the therapy. After the termination of the treatment, at the end of June 2006, computer tomography revealed only minimal changes- a thin-walled cavity of 17 x 15 mm in the right lung. The infiltration had totally resorbed. The isolation of *Mycobacterium mucogenicum* was considered of etiopathogenetically significance and the pulmonary disease due to *Mycobacterium mucogenicum* was reported to the Register of TB of the Czech Republic. The source of infection was not established.