

Fever and shortness of breath

Sunday, 01 May 2005

A 67-year-old female patient was admitted to our unit due to fever and shortness of breath.

Her past medical history was significant for breast cancer, which was treated with mastectomy in November 2003. She received chemotherapy from December 2003 until April 2004 (every 21 days). Then she underwent 30 cycles of radiation treatment.

The patient finished the last radiation treatment in June 2004. In September 2004 she developed difficulty in breathing and mild fever (up to 37.50C), which was felt to be due to radiation pneumonitis. She was given steroid treatment (methylprednisolone 16 mg every 12 hours for 1 week, with gradual decrease of the dose and discontinuation within one month). She felt improved with this treatment. However, 3 months later she developed similar symptoms for which she received methylprednisolone again (16 mg every 8 hours, with gradual decrease of the dose and discontinuation within 3 months), which led again to improvement of her symptoms.

However, in February 2005 the patient complained again of shortness of breath and mild fever. Physical examination on admission showed a temperature of 37.70C. There were bilateral rales in the middle and lower lung fields (more in the right lung). C-reactive protein and erythrocyte sedimentation rate were elevated. White blood cell count was also elevated. A chest X-ray showed an infiltrate mainly in the right middle and lower lobes (Figure 1).

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Diagnosis

Radiation induced pneumonitis was a likely diagnosis. However, infectious diseases were also possible causes of the patient's problems. The patient underwent bronchoscopy for transbronchial biopsy and obtaining specimens of bronchoalveolar lavage for microbiological studies. Biopsy showed findings suggestive of pneumonitis due to radiation. In addition, a PCR test for *Mycobacterium avium intracellulare* was positive (1).

Treatment

The patient was initially given intravenous antibiotic treatment with moxifloxacin 400 mg every 12 hours as an empirical treatment to cover atypical pathogens for 10 days (2). She felt gradually improved with this treatment. She also received per os treatment with rifabutin 150 mg every 12 hours and clarithromycin 500 mg every 12 hours for 2 months (3,4). The patient's health gradually improved. A chest X-ray verified the significant improvement (Figure 2).

Teaching point

This patient had a pulmonary infection due to atypical mycobacteria on top of radiation-induced pneumonitis.

References:

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Acknowledgements

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