

Hard Metal Lung Disease—The First Case in Singapore

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Abstract

Introduction: We report the first case of hard metal lung disease in Singapore and the occupational investigative work and control measures that were undertaken. **Clinical Picture:** A 38-year-old machinist in the tool manufacturing industry presented with exertional dyspnoea and cough. Chest X-ray revealed bilateral reticulonodular infiltrates with honeycombing. High resolution computed tomography scan of the thorax confirmed the presence of interstitial fibrosis. Open biopsy of the lung showed features of pneumoconiosis. Particle induced X-ray emission (PIXE) analysis, a relatively new elemental analysis technique, performed on the lung biopsy specimen confirmed the presence of tungsten and titanium; and he was diagnosed to have hard metal lung disease. Microbiologic, serologic and histologic investigations excluded an infective cause. Serial pulmonary function tests on follow-up showed no progression. He presented with haemoptysis 10 months later and was diagnosed to have tuberculosis on the basis of positive sputum and bronchoalveolar lavage cultures for *Mycobacterium tuberculosis* complex. **Treatment:** Preventive measures and permanent transfer to non-cobalt work were instituted. **Outcome:** The interstitial fibrosis appears to have stabilised. **Conclusion:** The diagnosis of hard metal lung disease must be considered in a worker exposed to cobalt presenting with interstitial fibrosis.

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