





Giant cell interstitial pneumonia secondary to cobalt exposure from e-cigarette use

Daffolyn Rachael Fels Elliott ¹, Rupal Shah², Catherine Ann Hess^{3,4}, Brett Elicker⁵, Travis S. Henry⁵, Ana Maria Rule ⁴, Rui Chen⁴, Mehdi Golozar⁶ and Kirk D. Jones¹

Affiliations: ¹Dept of Pathology, University of California San Francisco, San Francisco, CA, USA. ²Dept of Medicine, University of California San Francisco, San Francisco, CA, USA. ³School of Public Health Prevention Research Center, University of California Berkeley, Berkeley, CA, USA. ⁴Dept of Environmental Health Sciences, Johns Hopkins Bloomberg School of Public Health, Baltimore, MD, USA. ⁵Dept of Radiology, University of California San Francisco, San Francisco, CA, USA. ⁶Dept of Engineering, University of Cambridge, Cambridge, UK.

Correspondence: Kirk D. Jones, Dept of Pathology, University of California San Francisco, 505 Parnassus Ave, Room M-545, San Francisco, CA 94143, USA. E-mail: kirk.jones@ucsf.edu

● @ERSpublications

An e-cigarette user developed giant cell interstitial pneumonia, a rare disease largely limited to work exposure to hard metals, including cobalt. Analysis of the e-liquid identified significant levels of cobalt, supporting the e-cigarette's causative role. http://bit.ly/2VRcT1U

Cite this article as: Fels Elliott DR, Shah R, Hess CA, *et al.* Giant cell interstitial pneumonia secondary to cobalt exposure from e-cigarette use. *Eur Respir J* 2019; 54: 1901922 [https://doi.org/10.1183/13993003.01922-2019].

This single-page version can be shared freely online.

To the Editor:

The spectrum of pulmonary disease caused by e-cigarette use is currently emerging and appears to be multifaceted [1]. We describe a patient who developed pathologically documented giant cell interstitial pneumonia following regular use of an e-cigarette. This disorder has been termed hard metal pneumoconiosis, or cobalt lung, due to its close association with exposure to hard metal (cemented tungsten carbide with cobalt) [2]. Analysis of the device's e-liquid revealed significant levels of cobalt, supporting a diagnosis of giant cell interstitial pneumonia associated with inhaled cobalt from regular e-cigarette use.

Copyright ©ERS 2019