

## Clinical Image

Anthracosis in a Coptic Mummy<sup>☆</sup>

## Antracosis en una momia Copta

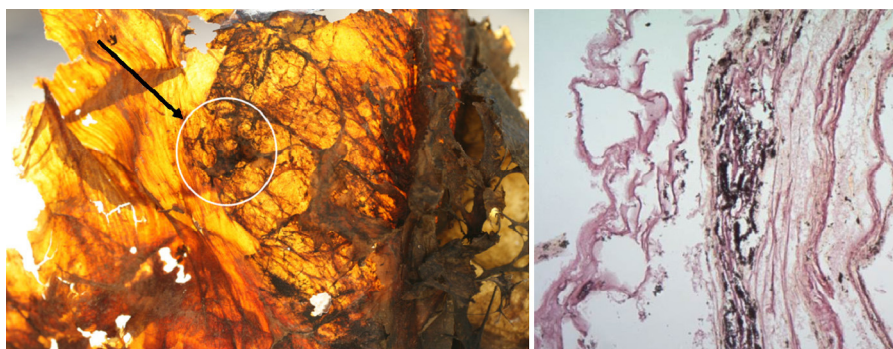
Albert Isidro,<sup>a,\*</sup> Assumpció Malgosa,<sup>b</sup> Gemma Prats-Muñoz<sup>b</sup><sup>a</sup> Museu Egipci, Barcelona, Spain<sup>b</sup> Unitat d'Antropologia Biològica, Facultat de Ciències, Bellaterra, Barcelona, Spain

The laboratory results from the mummy of a 25–35-year-old adult male (“Moses”/Q.445-2012) dating from the Middle Coptic period (AD 4th to 8th century) are reported. This individual was recovered from the Coptic necropolis of Qarara in Middle Egypt during the joint excavation performed by the Eberhard Karls Universität, Tübingen (Germany) and the Egyptian Museum of Barcelona in March 2012.

Specimens obtained during the *in situ* autopsy were transferred to the mission laboratory (Sharuna/Middle Egypt) where

tissue from the right hemothorax was processed with rehydration (modified Sandison method), fixation (48 h) and staining (hematoxylin–eosin).

The histological slices revealed pulmonary tissue with solid deposits compatible with anthracosis (Fig. 1). Anthracosis is observed in mummies from all historical periods and geographical regions. The oldest Egyptian mummy with this histological diagnosis was described in 1938.<sup>1</sup> The case of the Roman child mummy of Grotta-Rossa is interesting, and there are also Guanche



**Fig. 1.** The image on the left shows the lung region from which the sample was obtained. On the right is the histological image of anthracosis.

<sup>☆</sup> Please cite this article as: Isidro A, Malgosa A, Prats-Muñoz G. Anthracosis en una momia Copta. Arch Bronconeumol. 2014;50:368–369.

\* Corresponding author.

E-mail address: [aisidro.cot@gmail.com](mailto:aisidro.cot@gmail.com) (A. Isidro).

mummies from Tenerife, Arctic mummies, Italian Renaissance mummies and others with anthracosis from the inhalation of smoke from solid fuel, in particular biomass (wood) and smoke<sup>2</sup> that, in Coptic communities, came from enclosed kitchens inside their dwelling places.

## References

1. Shaw AFB. A histological study of the mummy of Har-Mose, the singer of the eighteenth dynasty (c. 1490 B.C.). *J Pathol Bacteriol.* 1938;47:115.
2. Torres-Duque C, Maldonado D, Pérez-Padilla R, Ezzati M, Viegi G. Biomass fuels and respiratory diseases: a review of the evidence. *Proc Am Thorac Soc.* 2008;5:577–90.