



IMAGES IN THORAX

Extrathoracic proof of intrathoracic trouble

C Dickhoff,¹ K J Hartemink,^{1,2} D J Slebos,³ P Symersky,⁴ A Vonk-Noordegraaf⁵

¹Department of Surgery, VU University Medical Center, Amsterdam, The Netherlands

²Department of Surgery, Netherlands Cancer Institute-Antoni van Leeuwenhoek Hospital, Amsterdam, The Netherlands

³Department of Pulmonology, University Medical Center Groningen, Groningen, The Netherlands

⁴Department of Cardiothoracic Surgery, Academic Medical Center, Amsterdam, The Netherlands

⁵Department of Pulmonology, VU University Medical Center, Amsterdam, The Netherlands

Correspondence to

Dr C Dickhoff,
Department of Surgery,
VU University Medical Center,
7F-005, postbox 7057,
Amsterdam 1007 MB,
The Netherlands;
c.dickhoff@vumc.nl,

Received 14 May 2013
Revised 25 June 2013
Accepted 4 July 2013
Published Online First
29 July 2013

A 67-year-old man was referred to our hospital for bullectomy. Chest CT scan showed exhaustive bilateral bullous emphysema with a giant bulla in the right lung (figure 1). Cardiopulmonary exercise testing revealed a maximum exercise tolerance of 30 Watts and a progressive dynamic hyperinflation with an inspiratory capacity of less than 50 mL during maximal exercise. During thoracotomy, manipulation of the airway made the patient cough and a giant bulla rapidly expanded with extension outside the right hemithorax (figure 2). This bulla was resected successfully and quality of life significantly improved with an increase in maximum exercise tolerance to 50 Watts, without signs of dynamic hyperinflation during cardiopulmonary exercise testing.

Dynamic hyperinflation in patients with severe chronic obstructive pulmonary disease with accompanying bullous disease can be very invalidating and significantly reduce quality of life. For this

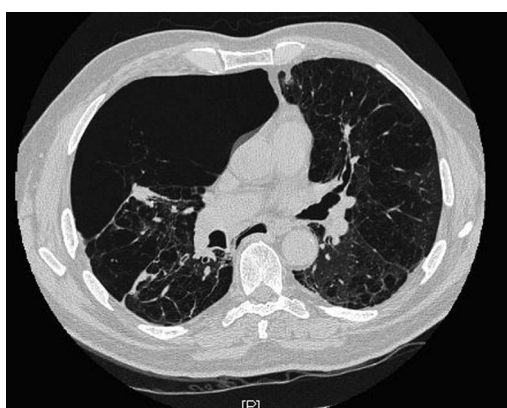


Figure 1 CT scan showing bilateral emphysema with a giant bulla in the right hemithorax.

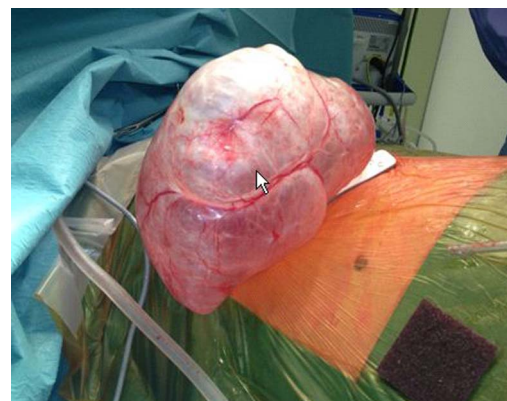


Figure 2 Extrathoracic expanded giant bulla of the right hemithorax during anterior thoracotomy.

group, bullectomy is safe and may offer clinical and functional improvement in respiratory and cardiovascular function.^{1 2}

Correction notice This article has been corrected since it was published Online First. The author affiliations have been updated.

Contributors CD, PS and AVN conceived the idea for the manuscript. CD, KJH wrote the manuscript, CD and PS made and selected photographs, DJS and AVN critically revised the manuscript.

Competing interests None.

Patient consent Obtained.

Provenance and peer review Not commissioned; internally peer reviewed.

REFERENCES

- 1 Palla A, desideri M, Rossi G, *et al.* Elective surgery for giant bullous emphysema: a 5-year clinical and functional follow-up. *Chest* 2005;128:2043–50.
- 2 Martinez FJ, Montes de Oca M, Whyte RI, *et al.* Lung-volume reduction improves dyspnea, dynamic hyperinflation and respiratory muscle function. *Am J Respir Crit Care Med* 1997;155:1984–90.



CrossMark

To cite: Dickhoff C,
Hartemink KJ, Slebos DJ,
et al. *Thorax* 2014;**69**:785.