

## Vascular Stenting for Palliation of Superior Vena cava Obstruction in Non-Small-Cell Lung Cancer Patients: A Future 'Standard' Procedure?

Laurent Greillier<sup>a</sup> Fabrice Barlési<sup>a</sup> Christophe Doddoli<sup>b</sup> Olivier Durieux<sup>c</sup>  
Jean-Philippe Torre<sup>d</sup> Céline Gimenez<sup>a</sup> Jean-Pierre Kleisbauer<sup>a</sup>

Departments of <sup>a</sup>Thoracic Oncology and <sup>b</sup>Thoracic Surgery, Faculty of Medicine, Méditerranée University (Aix-Marseille II), Assistance Publique-Hôpitaux de Marseille, <sup>c</sup>Departments of Respiratory Disease and Radiology, Hôpital Sainte-Marguerite, and <sup>d</sup>Department of Medical Information, Hôpital de la Timone, Marseille, France

### Key Words

Non-small-cell lung cancer · Superior vena cava obstruction · Stent · Endovascular prosthesis · Palliative care

### Abstract

**Background:** Stenting is a relatively new option in the management of superior vena cava obstruction (SVCO), but available data often concern non-malignant and/or various malignant diseases. **Objective:** The aim of this study was to assess the efficacy of vascular stenting as a first-choice treatment in SVCO in the exclusive setting of NSCLC. **Patients and Methods:** Retrospective study of NSCLC patients with SVCO treated in the past year. Demographic data, disease characteristics, etiologic and palliative treatment (use of vascular stenting) were recorded as well as treatment outcome and survival. **Results:** 17 patients were recruited. Eight had vascular stenting while 9 did not. Except for stenting, there was no difference between the two groups (median age 54 years; 80% men; 53% stage IIIB and 47% stage IV). Stenting (median length 60 mm) achieved complete resolu-

tion of SVCO more frequently (75 vs. 25%,  $p = 0.05$ ) and faster (2 vs. 21 days,  $p = 0.002$ ) without immediate or delayed complication. All patients with stents received anticoagulation therapy. Relapse rate after complete response (33 g, 50%,  $p = 0.6$ ) was lower and time to relapse (6.5 g, 2 months) was longer for patients undergoing stenting, without reaching statistical significance. Median overall survival was not statistically different (8 and 5 months,  $p = 0.06$ ). **Conclusions:** This study demonstrated the effectiveness of vascular stenting for SVCO in NSCLC patients. The high response rate, quick effect and safety of vascular stenting make this palliative treatment a candidate as a potential standard procedure. The results, however, must be confirmed in a prospective randomized trial including quality of life assessment.

Copyright © 2004 S. Karger AG, Basel

### Introduction

Non-small-cell lung cancer (NSCLC) is one of the leading causes of death in the European Union with approximately 180,000 cases per year [18]. Superior vena cava obstruction (SVCO) affects NSCLC patients approximately in 1.7–4% of cases [5, 13]. The most common fea-

L.G. and F.B. participated equally to the work.

KARGER

Fax + 41 61 306 12 34  
E-Mail karger@karger.ch  
www.karger.com

© 2004 S. Karger AG, Basel  
0025-7931/04/0712-0178\$21.00/0

Accessible online at:  
www.karger.com/res

Dr. Fabrice Barlési  
Service d'Oncologie Thoracique, Département des Maladies Respiratoires  
Hôpital Sainte-Marguerite, 270, boulevard de Sainte-Marguerite  
FR-13274 Marseille Cedex 09 (France)  
Tel. +33 491 74 47 36, Fax +33 491 74 55 24, E-Mail fabrice.barlesi@mail.ap-hm.fr