Letter by Lacout et al Regarding Article, “Prevalence, Characteristics, and Outcomes of Patients Presenting With Cardiogenic Unilateral Pulmonary Edema”

To the Editor:

It is with great interest that we read the article by Attias et al, “Prevalence, Characteristics, and Outcomes of Patients Presenting With Cardiogenic Unilateral Pulmonary Edema,” which appeared in the September 14, 2010 issue of Circulation.1 We wish to congratulate the authors, and would like to make some comments.

This interesting retrospective study regarding the incidence and pathogenesis of unilateral pulmonary embolism included 869 consecutive patients presenting with heart failure and pulmonary edema. Prevalence of unilateral pulmonary embolism was 2.1%, and mitral regurgitation was observed in every single case.

Allow us to put forward that, according to this comprehensive series, pulmonary embolism was never observed in emergency units, despite its high prevalence. Patients were evaluated solely on the basis of chest radiographs and transthoracic echocardiography. We would like to point out the interest in the use of computed tomography scans in intensive care units for patients presenting with heart failure. In appropriately selected patients, the pulmonary arteries, as well as aorta and coronary arteries, may be efficiently examined in a triple-rule-out high-quality computed tomography angiography examination.2 In fact, heart failure with pulmonary edema may be observed in patients with acute severe pulmonary embolism, and hence be related to pulmonary hypertension.3,4 As a result, pulmonary edema in territories not involved by vascular thrombosis may occur secondary to increased compensatory circulation with fluid overload. Indeed, severe unilateral obstruction of either the right or left main pulmonary artery may lead to hypoperfusion of the involved lung and to hyperperfusion with unilateral pulmonary embolism of the contralateral lung.3,4 Therefore, we believe that in patients presenting with heart failure and unilateral pulmonary embolism, severe asymmetric pulmonary embolism should be evoked, even more so in the absence of mitral regurgitation. A CT scan may be required, and should be performed cautiously because of iodinated contrast medium injection, which may increase blood volume and hence pulmonary edema.

Another point to consider is unilateral pulmonary embolism that may be observed contralateral to anomalous pulmonary venous drainage. CT angiography may also contribute in highlighting such a congenital anomaly.5

Acknowledgments

We thank Claudia Schlager for her help and suggestions on this letter.

Disclosures

None.

References

Letter by Lacout et al Regarding Article, "Prevalence, Characteristics, and Outcomes of Patients Presenting With Cardiogenic Unilateral Pulmonary Edema"
Alexis Lacout, Pierre Yves Marcy and Triet Ngo

Circulation. 2011;123:e607
doi: 10.1161/CIRCULATIONAHA.110.005082
Circulation is published by the American Heart Association, 7272 Greenville Avenue, Dallas, TX 75231
Copyright © 2011 American Heart Association, Inc. All rights reserved.
Print ISSN: 0009-7322. Online ISSN: 1524-4539

The online version of this article, along with updated information and services, is located on the World Wide Web at:
http://circ.ahajournals.org/content/123/20/e607

Permissions: Requests for permissions to reproduce figures, tables, or portions of articles originally published in Circulation can be obtained via RightsLink, a service of the Copyright Clearance Center, not the Editorial Office. Once the online version of the published article for which permission is being requested is located, click Request Permissions in the middle column of the Web page under Services. Further information about this process is available in the Permissions and Rights Question and Answer document.

Reprints: Information about reprints can be found online at:
http://www.lww.com/reprints

Subscriptions: Information about subscribing to Circulation is online at:
http://circ.ahajournals.org//subscriptions/