

## Patients with suspected acute pulmonary embolism in Central Africa: Evaluation with 64-rows multi-detector Computed Tomography Angiography

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### Summary

**Background.** Failure or delay in prompt diagnosis of acute pulmonary embolism is responsible for the high rate of mortality. The main objective of the study is to determine the clinico-demographic predictors of pulmonary embolism in central Africa using 64-rows multi-detector Computed Tomography Angiography.

**Methods.** From 01 January 2015 to 30 July 2015, all consecutive patients from emergency department who underwent chest 64-rows multi-detector Computed Tomography Angiography indicated for suspicion of acute pulmonary embolism at Biamba Marie Mutombo Dikembe Hospital and Research centre were retrospectively included in this study. Demographic and clinical data of these patients were revisited. Computed tomography images of patients were retrospectively reviews. Association between demographic or clinical parameters and presence of pulmonary embolism was evaluated.

**Results.** Sixty-five consecutive patients (age range, 24 to 84 years, mean age  $56.8 \pm 14.9$  years) were included in the study with a female predominance. Pulmonary embolism was formerly diagnosed in 17 patients (26.2% of cases). Aged  $\geq 65$  years (OR= 9, 5 CI 95% 14, 74 to 60, 780,  $p= 0,018$ ) and obesity (OR=40,8 CI 95% 2,846 to 58,441 ,  $P=0,006$ ) were the only two independent predictor of pulmonary embolism. Heart disease and pneumonia were the main pathologies associated and also constituted the main alternative diagnoses.

**Conclusion.** The 64-rows multi-detector Computed Tomography Angiography brings a clear added value in the epidemiology of pulmonary embolism due to accuracy of diagnosis, characterization, distribution of lesions and discrimination with other disease even in developing countries.