

The Acute Presentation of Pulmonary Thromboembolism: A Retrospective Viewpoint

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Abstract

Introduction: Acute pulmonary thromboembolism (PE) has been considered rare among Asians. We aim to describe the frequency and clinical features of this condition in a hospital in Singapore. Among patients admitted by the Emergency Department (ED), comparisons were made between those primarily diagnosed in the ED and those who were not. **Materials and Methods:** Retrospective review of all cases of radiologically proven acute PE over a 20-month period. **Results:** Sixty-two patients were identified. The mean age was 61.5 ± 18.0 years with a female to male ratio of 1.8:1. There were more Malays compared to other races. There were also more Caucasians, given the proximity of the hospital to the airport and the inclusion of tourists. The commonest symptoms were dyspnoea and chest pain, while the commonest signs were tachycardia and tachypnoea. Prolonged immobilisation was the commonest risk factor. Electrocardiographic $S_1Q_3T_3$ pattern was seen in more patients compared to Western studies. Cardiomegaly was the commonest chest X-ray finding. Thirty-two patients were identified to have a source of embolisation. Overall mortality rate was 21%. The ED diagnosed 36% of the cases. Alternative admitting diagnoses were predominantly ischaemic heart disease and pneumonia. The group diagnosed in the ED were notably female ($P = 0.044$), Caucasian ($P = 0.002$) and had prolonged immobilisation ($P = 0.025$) prior to the onset of PE. **Conclusion:** Acute PE is not as rare here as previously thought. Clinical features reveal more similarities than differences compared to other studies in the literature. We advocate a high index of suspicion for earlier diagnosis in the ED.

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