HKU Med LKS Faculty of Medicine
Department of Medicine
香港大學內科學系

Outcomes and Microbiology in Patients with Infective Endocarditis in Hong Kong 1996 – 2019

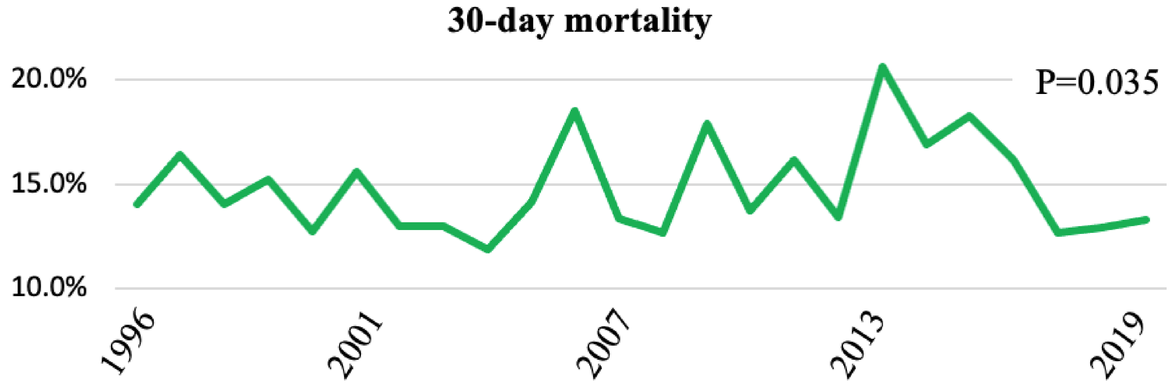
HL Li, SSY Yu, PF Wong, ASY Yu, YK Tse, LY Lam, CKL Leung, KY Li, MZ Wu, QW Ren & KH Yiu.
Department of Medicine, The University of Hong Kong, Queen Mary Hospital, Hong Kong

Introduction

Infective endocarditis (IE) is associated with high mortality rate and morbidity despite improvements in guidelines and management. Limited data exist regarding the characteristics of IE in the Asian population. We aim to describe the epidemiological characteristics, microbiology, and outcomes in IE patients in Hong Kong.

Methodology

From the Clinical Data Analysis and Reporting System (CDARS), a territory-wide database in HK, patients diagnosed with IE were included. Temporal trends in 30-day mortality rate were characterized using linear regression. Mortality rates stratified according to causative organisms were compared using multivariate Cox-Proportional Hazards model, adjusted for age, sex, Charlson Comorbidity Index (CCI), and other relevant comorbidities. Statistical analysis was performed using R.



Organisms	RR, 95% CI, p-value
Culture-negative	Referent
MRSA	**2.35 (1.83 – 3.02), p<0.01**
Other staphylococci	1.86 (1.58 – 2.18), p<0.01
Others	1.34 (1.09 – 1.66), p<0.01

Results

Altogether 6929 patients (mean age 56.2 years; 63.1% male) were included. Advanced age, male sex, higher CCI, and history of myocardial infarction were associated with a higher mortality.

Discussion

This is the first and largest report to comprehensively evaluate the trends and outcomes of IE in HK. The **mortality rate of IE remained high** despite improvements in management and changes in guidelines. Methicillin resistance, Staphylococcal infection, and advanced age were associated with poorer prognosis. Novel strategies are urgently needed to eliminate the residual risk of death in patients with IE.