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CLINICAL FEATURES AND PROGNOSIS OF PROSTHETIC VALVE ENDOCARDITISSun Xiaolu, Wang Guogan, Zhang Jian *Fuwai Hospital*

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Purpose To analysis the clinical characteristics and outcomes of prosthetic valve endocarditis.

Methods The study population comprised 40 consecutive patients who fulfilled the modified Duke criteria for prosthetic valve endocarditis from May 2005 to May 2008 at our institution. Data were collected retrospectively on demographic

characteristics, presenting signs and symptoms, results of laboratory and microbiological investigations, echocardiographic findings, treatment modality (antibiotic regimen, valve surgery), and clinical outcomes.

Result The mean age at presentation was 40 ± 11 years, with a slight male preponderance. There were 38 (95%) patients with involvement of a mechanical prosthesis; the majority (65%) had late prosthetic endocarditis. General fatigue (83%), fever (64%), major vessel embolism (61%), and anaemia (44%) were the most frequently manifestations. Major complications occurring during the acute infective phase were also recorded, including renal dysfunctional (75%), such as renal infarction, glomerulonephritis, nephropostasis, New York Heart Association class III–IV heart failure (66%), and neurological complication (22%). 23 cases (58%) had positive culture results with 36 causative pathogens, including 18 Gram-Negative bacillus (7 were *Acinetobacter*, 4 were *Citrobacter rodentium*, 3 were *Pseudomonas aeruginosa*, 3 were *Enterobacter cloacae*, 2 were *Burkholderia cepaci*), 10 coagulase-negative *Staphylococcus*, 3 *Staphylococcus aureus*, 3 fungi, 2 *Enterococcus faecalis* and 1 *Streptococcus*. All patients underwent transthoracic echocardiography, but only 8 (20%) had further evaluations with transesophageal echocardiography. More than half of patients detected prosthetic valve vegetations. 27 prosthetic valve endocarditis (68%) developed peri-annular complications (16 leakage, 6 abscesses, 4 dehiscence, 1 perforation of cardiac valve). The overall hospital mortality was 20% (8 patients), in spite of intensive managements. Causes of death included cerebrovascular accident, renal failure, refractory heart failure.

Conclusion Prosthetic valve endocarditis is associated with a high mortality despite diagnostic and therapeutic improvements. The spectrum of microorganism is quite different between the early and the late PVE patient. Microorganism should be investigated particularly by molecular methods on surgical specimens. Early diagnosis, bacterial culture and transesophageal echocardiography may be essential for prosthetic valve endocarditis.