A Case of Prosthetic Tricuspid Valve Failure
Chief Complaint

M/49

Facial and lower extremity edema
Onset: 6DA
Associated symptom: dyspnea on exertion
Present Illness

1996: Diagnosed as Ebstein’s anomaly with TR

2000. 12: Chest discomfort (+)

2004. 11: Exertional dyspnea → CAG : 3VD

2004. 12: CABG & TVR (St. Jude 33mm)

2005. 2: ¼ ± ¼, ÐÅ ÐÅ, ÐÅ ÐÅ, ÐÅ ÐÅ, ÐÅ ÐÅ
Physical Findings

V/S) 130/80 – 90 – 24 – 36.5

JVP 12 cmH2O
RHB without murmur,
Prosthetic opening click (-)
Crackles (-)
Shifting dullness (+)
Pitting edema (+/+)
2004.12 (Postop)
2004.12 (Postop)
2004.12 (Postop)

Mean PG : 1.6mmHg
2005. 2 (OPD)
2005. 2 (OPD)
2005. 2 (OPD)
Mean PG : 11 mmHg
Hospital D1

Urokinase 500,000 U loading over 20min

IV 2,500,000 U infusion over 12hr
Hospital D2
Hospital D2
Hospital D2

Mean PG : 4.3mmHg
Hospital D3
Hospital D3

Repeat thrombolysis with Urokinase
Hospital D4
Hospital D4
Hospital D4
Hospital D4

Mean PG : 2 mmHg
Hospital D4
Prosthetic Valve Thrombosis

Incidence

- Annual incidence: 0.1%-5.7%
- 4~8.6% within 5 years of implantation
- 13% in 1 year for tricuspid prosthesis
Diagnosis

Clinical presentation
- Dyspnea
- Metallic click
- JVP
- Pulmonary congestion
- Poor peripheral perfusion
- Systemic embolization

Assessing valve function
- Cinefluoroscopy
- TTE & TTE
- Doppler echocardiography
Therapy

Medical Treatment

Heparinization
- Nonobstructive thrombosis: 63%

Thrombolysis (UK, streptokinase, t-PA)
- Alternative to surgery
- Thrombembolic risk: 0-20%
- Stroke rate: 5-10%
- Major bleeding: 5-10%

Surgery

Traditional treatment
- Mortality: 35% in critically ill patient
Therapy

Right-sided PVT: Thrombolytic therapy

Left-sided PVT: Surgery

- Critically ill patients
- Immediate surgery is not available
- Contraindication to surgery
- Small thrombus

→ Thrombolysis
Korean Circulation J 1991

Korean J Thoracic Cardiovasc surg 2002