

lymph node biopsy results did not confirmed the diagnosis of carcinoid syndrome. The patient's history was also revealed a moderate degree mitral and aortic regurgitation following for three years. At presentation we detected 3/6 pansystolic murmur at the apex and concomitant diastolic regurgitation at the left sternal border. Transthoracic echocardiographic examination with a Philips I33 machine revealed moderate to severe aortic regurgitation and moderate degree mitral regurgitation. Left ventricle was mildly dilated (diastolic diameter 58 mm) but had normal ejection fraction (62%). There was severe degeneration of aortic valve and a suspected perforation of anterior mitral valve at the junction of A2-A3 scallops (Fig. 1). To define the problem more clearly we performed a transesophageal echocardiography which confirmed our suspicion of anterior mitral valve perforation at the A2-A3 area (Fig. 2). Based on these findings we proposed valve surgery to the patient. A mechanical valve (St. Jude No:23) was used for aortic position and mitral valve was repaired with direct suturing at the perforation site (Fig. 3). Pathologic examination of excised aortic valve yielded nonspecific inflammatory infiltrate. Postoperative course was uneventful and the patient discharged at the seventh day with appropriate therapy including agents aimed to dyspeptic symptoms.

Mitral valve perforation is more frequently caused by infective endocarditis (1). However, congenital or iatrogenic causes are also possible (2, 3). In our patient, we did not be able to define the underlying problem for mitral perforation. Although the patient did not have recent or past history of infective endocarditis, we could not totally exclude past occurrence of clinically silent aortic valve endocarditis complicated by mitral valve perforation as a possibility described before (4). Although there was no definite diagnosis his quick weight loses and fever may support a possibility of previous infectious event he experienced three

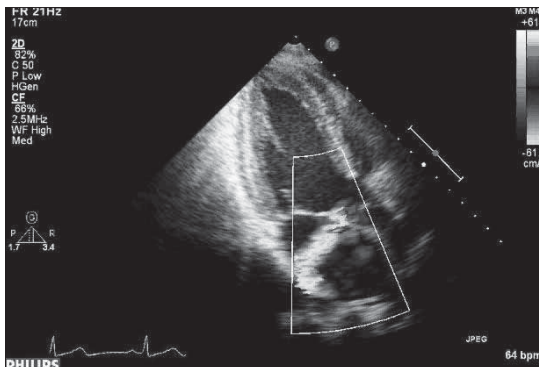


Figure 1. Transthoracic echocardiographic view of the perforation

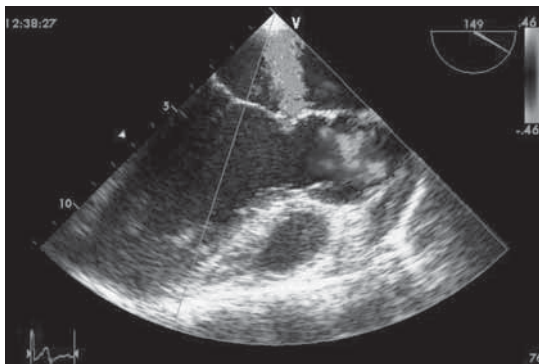


Figure 2. Transesophageal echocardiographic view of the perforation



Figure 3. Surgical view of the perforated mitral valve

years ago. Moreover, relatively late detection of mitral valve problems was also against the congenital presence of perforation.

In conclusion, we can speculate that the patient had mitral valve perforation caused by remote aortic valve endocarditis, which was very unusual clinical presentation.

Adem Güler, Oben Baysan*, Mehmet Yokuşoğlu*, Celal Genç*, Hayrettin Karaeren*

From Departments of Cardiovascular Surgery and *Cardiology, Gülhane Military Medical School, Ankara, Turkey

References

1. De Castro S, d'Amati G, Cartoni D, Venditti M, Magni G, Gallo P, et al. Valvular perforation in left-sided infective endocarditis: a prospective echocardiographic evaluation and clinical outcome. *Am Heart J* 1997; 134: 656-64.
2. Öztunç F, Saltık İL, Türkoğlu H. Mitral perforation: a rare cause of congenital mitral regurgitation. *Cardiol Young* 2003; 13: 472-4.
3. Konings TC, Koolbergen DR, Bouma BJ, Groenink M, Mulder BJ. Iatrogenic perforation of the posterior mitral valve leaflet: a rare complication of pacemaker lead placement. *J Am Soc Echocardiogr* 2008; 21: 512.e5-7.
4. Nomeir AM, Downes TR, Cordell AR. Perforation of the anterior mitral leaflet caused by aortic valve endocarditis: diagnosis by two-dimensional, transesophageal echocardiography and color flow Doppler. *J Am Soc Echocardiogr* 1992; 5: 195-8.

Address for Correspondence/Yazışma Adresi: Mehmet Yokuşoğlu, MD
Gülhane Military Medical School, Department of Cardiology, Ankara Turkey
Phone: +90 312 304 42 67 Fax: +90 312 304 42 50
E-mail: myokusoglu@yahoo.com

A concern on cardiac involvement in swine flu

Domuz gribi ile kalp hastalığı ilişkisi

In early 2009, emerging of swine flu brings attention to medical scientists around the world. Finally, swine flu is classified as a new variant of H1N1 influenza virus infection. Since H1N1 influenza virus infection is already confirmed for possible cardiac involvement (1, 2), the concern on the swine flu infection is important in cardiology. Although there is no present specific report mentioning for cardiac manifestation in swine flu and it is needed to closely monitor all infected cases for possible cardiac involvement.

Viroj Wiwanitkit
Wiwanitkit House, Bangkhæ, Bangkok, Thailand, 10160

References

1. Seneca H. Influenza: epidemiology, etiology, immunization and management. J Am Geriatr Soc 1980; 28: 241-50.
2. Mamas MA, Fraser D, Neyses L. Cardiovascular manifestations associated with influenza virus infection. Int J Cardiol 2008; 130: 304-9.

Address for Correspondence/Yazışma Adresi: Prof. Viroj Wiwanitkit, M.D.,
Wiwanitkit House, 38/167 Soi Yim Prayoon, Bangkhae Bangkok, 10160, Thailand
Phone-Fax: +66 24 132 436
E-mail: wviroj@pioneer.netserv.chula.ac.th; wviroj@yahoo.com