A 57-year-old man with ischaemic cardiomyopathy was admitted to our institution with fever. The patient had undergone percutaneous mitral valve repair abroad 2 weeks before admission.

Transthoracic and transoesophageal echocardiography (TTE/TEE) were performed, showing a mobile lesion (red arrows) originating from the implanted MitraClip mitral valve repair system (*). *Staphylococcus aureus* was detected in all six serial blood cultures. Therefore, the diagnosis of infective endocarditis was definite.

Antibiotic therapy (Vancomycin, Gentamicin, Rifampicin) was initiated immediately after echocardiography and obtaining blood cultures. Owing to clinical deterioration and increasing vegetation (initial size: 8 mm, size after 1 week: 12 mm), despite predicted high perioperative mortality (EuroScore: 18, mortality 79.3%), surgical treatment was considered. Mitral valve replacement using a biological prosthesis (St Jude Epic Mitral 31 mm) and tricuspid valve reconstruction were performed 8 days after admission. Intraoperative surgical and histological findings of the mitral valve and the attached MitraClip confirmed the diagnosis of infective prosthetic endocarditis. Fortunately, no major postoperative complications occurred. Antibiotic therapy was continued for 6 weeks.

Twelve weeks after mitral valve replacement, the patient was readmitted with fever. In echocardiography, an oscillating remnant of the lateral papillary muscle with no change in morphology compared with the post-operative status was seen. Nevertheless, because of renal failure due to suspected embolic renal infarction, relapse of infective endocarditis was assumed. Antibiotic therapy (Vancomycin, Gentamicin, Rifampicin, and Tazobactam) was again initiated for 6 weeks. In the following months, the patient had been hospitalized several times for chronic heart failure.

Nine months after mitral valve replacement, endocarditis caused by *S. aureus* reoccurred. Biological prosthesis replacement using a biological prosthesis (St Jude Epic Mitral 29 mm) was performed. The patient is currently recovering from surgery.

In the early stages of healing after percutaneous mitral valve repair the MitraClip is covered with platelet and fibrin deposition. Therefore, endocarditis caused by *S. aureus* might be more prone to occur. Because no other access point of the infection could be determined, it seems possible that the infection could have been caused iatrogenically. To our knowledge, this is the first case of active infective prosthetic endocarditis after percutaneous edge-to-edge mitral valve repair in humans.