Introduction
Abnormal communication between the left atrium (LA) and left ventricle (LV) is a very rare finding. Such fistula is difficult to diagnose on routine clinical examination. Iatrogenic injury or infective etiology seems to be commonly reported reasons. Herein, we present such an unusual case of left ventricular to left atrial fistula detected intraoperatively.

Case Report
A 44-year-old male patient was complaining of progressive dyspnea on exertion for 11/2 year. He was diagnosed with rheumatic heart disease with severe mitral regurgitation (MR) at the previous hospital 1 year back. He had orthopnea at presentation to our center. Transthoracic echocardiography revealed severe eccentric MR with a dilated LA. The patient was scheduled for mitral valve replacement. Intraoperative transesophageal echocardiography confirmed the previous findings. It also showed MR jet behind the posterior mitral annulus [Figure 1 and Video 1]. There were no echocardiographic features suggestive of infective endocarditis. After instituting cardiopulmonary bypass (CPB) and cardioplegic arrest, left atriotomy was performed. A fistulous tract connecting LV and LA was identified [Figures 2 and 3]. There was no submitral aneurysm seen. Intraoperative examination of the fistulous tract showed small, sacculated fibrous, hardened region probably secondary to the previous inflammatory process. The fistula was repaired from LA as well as LV side using pledgeted sutures. Mechanical mitral valve replacement was performed with preservation of anterior chordae. The patient was easily weaned off CPB with minimal inotropic support. The postoperative course of the patient remained stable.

Discussion
Left ventricular to left atrial fistula is a very uncommon finding. Most of the cases are secondary to surgical procedures or paravalvular infectious process.[1-3] The present case depicted an unusual regurgitation (apart from transmitral MR) through LV-LA fistula causing deterioration of the patient’s symptoms. Interestingly, the reason for such fistula formation, in this case, could not be ascertained in the absence of any previous surgery or history.

Abstract
Left ventricular to left atrial fistula is a very uncommon finding. Most of the cases are secondary to surgical procedures or paravalvular infectious process. The present case depicted an unusual regurgitation (apart from transmitral MR) through LV-LA fistula causing deterioration of the patient’s symptoms.

Keywords: Endocarditis, infective, left ventricular fistula, mitral regurgitation

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of infective endocarditis. Preoperative transthoracic echocardiography did not diagnose the fistula which was observed only during intraoperative transesophageal echocardiography. We believe small, indurated, the fibrous perfistular area may be due to old healed paravalvular abscess.

Persisting patient’s symptoms and progressively increasing left atrial size after mitral or aortic valve replacement mandates the evaluation for such fistula. Transthoracic echocardiography may not always detect cardiac fistula. Hence, transesophageal echocardiography, multidetector cardiac tomography, or cardiac magnetic resonance imaging can be useful in such cases. Diagnosis should always be followed by workup for infective endocarditis, for example, blood culture and sensitivity.

**Declaration of patient consent**

The authors certify that they have obtained all appropriate patient consent forms. In the form the patient(s) has/have given his/her/their consent for his/her/their images and other clinical information to be reported in the journal. The patients understand that their names and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

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**Conflicts of interest**

There are no conflicts of interest.

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