A 49-year-old man, with no history of cardiac disease, presented with progressive dyspnea of one month's duration.
Medical History.
His medical history included blunt chest trauma, the result of an accidental fall from scaffolding 15 months earlier.
He had fallen approximately 8 feet and had landed on the right side of his back and on his right shoulder.
The patient had sustained bilateral pneumothorax, right iliopsoas muscle hematoma, multiple right costal fractures, fracture of the L3 vertebral body and the transverse process, and displaced fractures of the right clavicle.
That hospitalization had lasted 40 days, during which time the clinicians had not detected any murmur or requested a cardiac evaluation.
The patient returned to normal activities 4 weeks after discharge from the hospital and remained asymptomatic for one year.
Upon his arrival at our department, auscultation revealed bibasilar rales and a pansystolic murmur.
Chest radiography showed mild lung congestion; and transthoracic echocardiography, limited by suboptimal acoustic windows, revealed severe, eccentric mitral regurgitation.
The valvular and subvalvular apparatus appeared to be structurally normal, and the left atrium was only mildly dilated.
The patient was treated with intravenous diuretics until the signs and symptoms of congestion were relieved.
Coronary angiography revealed an absence of substantial coronary disease.
We therefore planned an elective surgical procedure for mitral valve repair.
Surgical Procedure.
During intraoperative transesophageal echocardiography (TEE), we observed both a trivial central mitral regurgitant jet and a severe perivalvular regurgitant jet, this last originating from a ventriculoatrial fistulous communication behind the P1 scallop (Fig.1).
Further examination confirmed the absence of structural disease involving the mitral leaflets or subvalvular apparatus.
After surgical exposure of the mitral valve, a small tear (length, 6–7 mm) could be seen behind the posterior leaflet, in a lateral position, involving also the annulus and the left atrial wall.
The absence of leaflet abnormalities or vegetations suggested the posttraumatic origin of the perivalvular leak.
Valvular repair was successfully achieved by direct suture of the tear with three 5-0 Prolene stitches and by the subsequent insertion of a 30-mm mitral annuloplasty ring.
The patient was extubated the next day and his postsurgical course was uncomplicated.
One year later, he was asymptomatic, and his one-year follow-up transthoracic echocardiogram confirmed the excellent result of his surgical treatment.