Table I: Baseline characteristic data, presentation, ECG, possible cause, management, and outcome.

(TIA, transient ischemic attack; MI, myocardial infarction; STEMI, ST-segment elevation myocardial infarction; MCA, middle cerebral artery; NR, not reported; HF, heart failure; LVAD, left ventricle assisted device; AKI, acute kidney injury; BiVAD, biventricular assist device; IHD, ischemic heart disease; PCI, percutaneous intervention; LAD, left anterior descending artery; FUO, fever of unknown origin; LCX, left circumflex artery; LV, left ventricle; CABG, coronary artery bypass graft; NYHA, New York heart association; NSTEMI, non-ST-segment elevation myocardial infarction; CoVID-19, coronavirus disease 2019; IV, intravenous; RTPA, recombinant tissue plasminogen activator; AF, atrial fibrillation; DVT, deep vein thrombosis; RVOT, right ventricle outflow tract; DCL, disturbed consciousness level; RBBB, right bundle branch block.

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Author/ year | Age | Gender | Risk factors | presentation | ECG | Extracardiac emboli site | Cause | Management | outcome/ complications |
| Kumar, 2016 (30) | 44 | Male | Smoking | TIA (upper limb weakness) | old anterolateral MI (t wave inversion and downward ST sloping v1-4) | brain | Old anterolateral STEMI | surgical removal | Recovery and discharge. |
| Grewal et al., 2020 (31) | 23 | Female | ulcerative colitis (diagnosed 2-3 weeks before presentation) | Stroke (sudden weakness on the right side with aphasia; left MCA infarction) followed by episodes of TIA despite anticoagulation therapy | Normal | brain, MCA | Ulcerative colitis | Surgical removal | Recovery and discharge. |
| Garg et al., 2021 (32) | 60 | male | Hypertension, schizophrenia | fever, dyspnea, desaturation (83% room air), altered consciousness | Sinus rhythm, left ventricular hypertrophy, prolonged QTc | mural thrombus and pulmonary embolism | CoVID-19 pneumonia | Heparin | NR |
| Cousin et al., 2014 (33) | 63 | Male | HF | cardiogenic shock and hypotension | NR | None | Non-ischemic dilated cardiomyopathy | Surgical thrombectomy and LVAD | Recovery and discharge (with a plan for heart transplantation) |
|  | 50 | Male | HF and coagulopathy | dyspnea, bilateral lower limb edema, pneumonia, septic shock, and AKI | NR | None | HF/ coagulopathy (occluded right popliteal vein) | Surgical thrombectomy and BiVAD. Heart transplantation after 6 months. | Recovery and discharge |
|  | 64 | Male | IHD, HF, chronic lymphocytic leukemia, and acute promyelocytic leukemia | NR | NR |  | IHD and HF | Surgical removal | Thrombus recurrence after 6 months of recovery. |
| Kanazawa et al., 2016 (34) | 75 | Female | NR | NR (referral) | Q waves v1-v4 | None | Apical aneurysm due to asymptomatic MI | Surgical removal | NR |
| Allende et al., 2010 (35) | 74 | Female | essential thrombocythemia and previous unstable angina (PCI to the LAD) | Atypical chest pain and left hemiparesis (on the 2nd day of admission) | Normal then negative T wave | Brain and heart (distal LAD) | Combined essential thrombocythemia with IHD. | Surgical removal and saphenous vein graft to the distal LAD. | Improvement (of neurological symptoms) and discharge |
| Lutz et al., 2007 (36) | 34 | Male | hyperlipidemia, gastroesophageal reflux disease, pyelonephritis, hydronephrosis, Crohn’s disease, ischemic colitis, and depression | Referral, FUO | NR | None | Ulcerative colitis | Surgical removal | Recovery and discharge (4 days) |
| Nili et al., 1988 (37) | 59 | Male | Eight-month history of stable angina | Chest pain, acute anteroseptal MI followed by HF | NR | None | Acute MI and HF | Surgical removal and graft of the LAD | Recovery and discharge (14 days) |
|  | 56 | Male | Polycythemia vera | left upper quadrant abdominal pain and fever for two weeks after anterior MI (treated by heparin infusion). | NR | Spleen | Acute MI and HF | Surgical removal of thrombus and double coronary bypass (LAD and LCX) | Recovery and discharge (22 days) |
|  | 46 | Male | MI 1 year before presentation | Left common femoral artery occlusion | NR | Common femoral artery | MI (1 year before presentation) | Surgical removal of LV thrombi (thrombectomy) | Recovery and discharge (10 days) |
|  | 66 | Male | eleven-year history of angina; MI 2 years; CABG candidate | Angina | NR | None | MI (2 years) | Surgical removal then CABG | Recovery and discharge (12 days) |
| Kharwar, 2014 (38) | 30 | Female | Pregnancy (hypercoagulable state) with poor LV function | peripartum cardiomyopathy Orthopnea and dyspnea on exertion (3 weeks after delivery) | Sinus tachycardia | None | Peripartum cardiomyopathy (poor LV function and hypercoagulable state) | Oral anticoagulation (warfarin) | Complete dissolution (30 days) and improvement of systolic function to 43% |
| Ito, 2020 (39) | 52 | Female | IHD | Discovered during an MRI study | NR | None | MI (15 years) | Surgical removal | recovery and discharge (10 days) |
| Singal, 2021 (40) | 32 | Male | Two-year history of anabolic androgenic steroid abuse and three-month history of mephentermine abuse. | Acute decompensated heart failure (plus left upper limb monoparesis and embolic TIA on the second day) | Sinus tachycardia and left ventricle enlargement | Brain (left parietal lobe and right cerebellum) | Toxic cardiomyopathy (secondary to mephentermine and/or anabolic androgenic steroid abuse) | Anticoagulant (warfarin) | Complete dissolution (with an improvement of NYHA classification and LV function after two weeks) |
| Tanaka, 2014 (41) | 37 | Female | Pregnancy (hypercoagulable state) with poor LV function | Exertional dyspnea and fatigue | NR | None | Peripartum cardiomyopathy (poor LV function and hypercoagulable state) | Surgical removal | Recovery and discharge (day 10) |
| Jeganathan, 2011 (42) | 62 | Male | Hypertension, renal impairment, and cancer colon treated surgically (4 years) | Right acute limb/ leg ischemia with compartment syndrome | NR | Right popliteal artery | Idiopathic | Surgical removal | Recovery and discharge |
| Janula, 2021 (43) | 47 | Male | Diabetes mellitus, obesity, and dyslipidemia | NSTEMI in the context of CoVID-19 infection, fever, and expressive aphasia developed during hospital stay (day 4) | RBBB | Right occipital and left temporal regions (with micro-hemorrhagic transformation, contraindication for anticoagulation) | procoagulant state of CoVID-19 and acute MI | Surgical removal | Recovery |
| Marchini, 2009 (44) | 33 | Female | Hypertension, smoking, and repeated miscarriage | Dyspnea and lower limb edema for 3 years (NYHA II) | Q waves I, aVL; st depression II and III; T wave inversion I, aVL, V5, and V6; and LV hypertrophy | None | HF | Surgical removal | Recovery (discharge 9 days) |
| Mukai, 1991 (45) | 68 | Male | Diabetes | Congestive heart failure (thrombus developed during the hospital stay, on the 15th day) | Sinus tachycardia, mild LV hypertrophy | None | Dilated cardiomyopathy | Surgical removal | Recovery |
| Park, 1986 (46) | 33 | Male | IHD (inferior STEMI 6 years before presentation), emboli to the right femoral artery and left internal iliac artery (failed bypass and right above-knee amputation) | Mesenteric artery thromboembolism (abdominal pain) |  | mesenteric artery | MI (6 years) | Surgical removal | Recovery without recurrence (complicated with an embolus to the left femoral artery on the 20th day, which was treated with left above-knee amputation. |
| Bakhtiari, 2012 (47) | 51 | Male | Diabetes mellitus, hypertension, hyperlipidemia, IHD (MI 3 years backward) | Two-week history of right-sided weakness, left-sided paresthesia, and visual disturbance bilaterally. |  | Brain (bioccipital, basal ganglia, and internal capsule) | MI (3 years) | Surgical removal | Recovery |
| Chen, 1981 (48) | 74 | Male | IHD, ventricular ectopy, congestive cardiomyopathy, and diabetes mellitus | Dysarthria, weakness, and ataxia |  | Brain | Idiopathic congestive cardiomyopathy | IV heparin | Death |
| Rester, 2001 (49) | 23 | Female | Pregnancy-induced hypertension and peripartum cardiomyopathy | Fatigue, shortness of breath, and bilateral flank pain. | Sinus tachycardia with non-specific ST-T segment abnormality | Spleen, right kidney | Peripartum cardiomyopathy (poor LV function and hypercoagulable state) | RTPA (after the failure of heparin infusion and enlargement of the thrombus size) | Recovery (complete lysis of the thrombus after 8-10 hours) |
| Azari, 2021 (50) | 45 | Male | Diabetes mellitus, hypertension, smoking, and alcohol intake | Negligible MI (severe epigastric pain, fever, sweating, and tachycardia) | Q waves in V1-2 and biphasic T wave V2-4 | mesenteric artery | Acute MI and HF | Surgical removal | Recovery |
| Chen, 2008 (51) | 84 | Male | IHD (anterior MI 8 years ago), and AF | Acute left lower limb ischemia | NR | Left lower limb | MI (8 years) | Surgical removal | NR |
| Kumar, 2022 (52) | 57 | Male | None | Bilateral acute lower limb ischemia with absent dorsalis pedis and posterior tibial arteries bilaterally. | Normal | mid and distal anterior tibial and dorsalis pedis bilaterally | Idiopathic | Aspirin (150 mg), clopidogrel (75 mg), and LMWH for 48 hours/ till leg numbness disappeared. Then antiplatelet plus dabigatran 110 mg for two weeks (till the thrombus disappeared). Resumed on aspirin+ dabigatran 150 mg twice daily for 6 months. | Recovery of leg condition and lysis of the LV thrombus |
| Eren, 2013 (53) | 45 | Female | NR | Cerebrovascular accident (loss of consciousness for 15 minutes followed by ataxia) | Normal (sinus rhythm) | Brain (bilateral infarcts) | Idiopathic | Surgical removal | NR |
| Daley, 1987 (54) | 40 | Male | Agnogenic myeloid metaplasia | Maculopapular rash, fever, and pleuro-pericardial pain | Normal | None | Idiopathic myocarditis and spontaneous platelet aggregation. | Surgical removal | Recovery and discharge (4 weeks) |
| John, 1991 (55) | 63 | Female | Peptic ulcer | MI | Inverted T wave I, aVL, and V2-6 | None | Acute MI | Surgical removal | Recovery and discharge. |
|  | 56 | Male | NR | Unstable angina (4 weeks) | Q waves anteriorly. | None | Acute MI | Surgical removal | Recovery and discharge. |
| Lewin, 1980 (56) | 51 | Male | IHD (inferior MI 6 years and anterolateral MI 4.5 years backward) | Bilateral acute limb ischemia | Old inferior and anterior MI (persistent ST elevation) | bilateral to the Iliac arteries | Aneurysm of the anterior wall | Surgical removal of the thrombus with aneurysmectomy | Recovery and discharge (14 days) |
| Shetty, 2011 (57) | 49 | Female | Anxiety, hypertension, and surgical history of hysterectomy. | One month history of exertional dyspnea | NR | None | prothrombin G20210 mutation | Surgical removal followed by anticoagulation (enoxaparin and warfarin then warfarin). | Recovery and discharge.  Complicated by atrial mass after 6 weeks, dissolved medically after two months of medical treatment |
| Vaganos, 1989 (58) | 43 | Female | history of bilateral DVT and pulmonary emboli. | Eight-hour history of pain, pallor, pulselessness, and paralysis of the left leg. | Normal | Left common femoral artery | Possible hypercoagulable state | Surgical removal | Recovery |
| Lew, 1983 (59) | 63 | Male | history of DVT and pulmonary embolism ( the patient was already on IV heparin) | Acute right limb ischemia |  | Right femoral artery | Possible hypercoagulable state | Surgical removal | Recovery |
| Chamsi-Pasha, 2009 (60) | 32 | Male | None | Routine echocardiography (asymptomatic) | Normal | None | Idiopathic cardiomyopathy | Warfarin overlapped with enoxaparin maintaining INR 2-3, then warfarin for 6 months | Complete dissolution after 6 weeks |
| Early, 2001 (61) | 64 | Female | NR | Acute anterior MI, received thrombolytic therapy + no LV thrombus on presentation | Anterior STEMI | None | Acute MI | Surgical removal | Recovery |
| Wohlfarter, 1991 (62) | 28 | Male | Appendectomy (4 weeks) | Occlusion of the left superior femoral A at the adductor canal (dragging pain at the cuff) |  | Left superior femoral artery |  | Heparin failed, systemic thrombolysis with streptokinase 750000 IU replaced by ancrod 70 IU/ day IV for increased movement, then heparin 3000 IU IV, | Recovery (thrombus size decreased to 0.7 after 5 days, then it disappeared after two weeks) |
| Palazzuoli, 1994 (63) | 70 | Male | bilateral lower limb arteriopathy. | Episodes of disorientation | Recent inferior MI | None | Acute MI | Calcium heparin 12500 IU/ 8 hours | Complete dissolution after 20 days. |
| Jeon, 2012 (64) | 40 | Male | None | Stroke and acute limb ischemia (dyspnea, right facial and limb weakness as well as both lower limb pain, pulselessness and coldness). | Sinus rhythm with diffuse non-specific ST segment changes. | Brain, right femoral and right popliteal, and left popliteal arteries | Idiopathic dilated cardiomyopathy | Surgical removal | Recovery and discharge (7 days) |
| Chirillo, 1996 (65) | 47 | Male | Recurrent pulmonary embolism, DVT (bilateral femoral and saphenous), smoking, and left lung cancer | Bilateral pulmonary embolism, left pulmonary infarction masking tumor, and thrombosis in the IVC (Sudden dyspnea, tachycardia, and hypoxemia) | RBBB | Lung, lower limb, IVC | Hypercoagulable state resistant to anticoagulation (paraneoplastic hypercoagulable state) | Heparin and RTPA after 5 days | Death (electromechanical dissociation due to RVOT obstruction) |
| DeWitt, 1988 (66) | 80 | Female | None | Stroke (right upper limb weakness and speech abnormality) | Nonspecific ST and T wave changes | Brain | Idiopathic | Heparin then warfarin. | Recovery and dissolution of thrombus (12 days) |
| Hwang, 1985 (67) | 43 | Male | None | Anterior MI (2 weeks) | NR | Superior mesenteric artery | Acute MI | Surgical removal | Recovery and discharge. |
| Çil, 2013 (68) | 28 | Male | IHD (anterior MI 2 years) | Deteriorating dyspnea (decompensated heart failure NYHA class IV) | Anterior ST-segment elevation | None | Essential thrombocythemia, previous IHD with resultant aneurysm, and HF | Tirofiban after failed heparin infusion (1000 IU/hour for 48 hours) | Complete dissolution after 48 hours (decreased size after 24 hours to 1.8\*0.7)/ recovery and discharge (on the 6th day) |
| Seitz, 2012 (69) | 48 | Male | Cystic fibrosis | DCL, hemoptysis, dyspnea, and respiratory arrest | NR | None | Takotsubo cardiomyopathy | Surgical removal | Recovery and discharge (on day 5 after the operation) |
| Manasrah, 2022 (70) | 54 | Female | Type II DM and smoking | Two-hour history of right leg pain. | RBBB | The aortoiliac bifurcation, bilateral common iliac arteries, and proximal left internal iliac artery | Idiopathic | Surgical removal | Recovery and discharge |
| Jeganathan, 2011 (71) | 62 | Male | Hypertension, colorectal carcinoma, and renal impairment. | Acute right leg ischemia | NR | Right popliteal artery | Idiopathic | Surgical removal (after failed heparin) | Recovery and discharge |
| Erkal, 2017 (72) | 63 | Male | Right femoral embolectomy 2 weeks before presentation | Left femoral artery occlusion | Normal sinus rhythm | Left femoral artery | Idiopathic | Medical treatment | Recovery |
| Maruri-Sánchez, 2019 (73) | 38 | Male | Smoking, dyslipidemia, hypertension, and left lower limb DVT 2 years ago | Stroke | NR | right MCA | Idiopathic | Surgical removal | Recovery and discharge |
| MULLER, 1996 (74) | 41 | Female | Hypertension | Stroke | Left anterior hemiblock, and non-specific ST-T wave changes | Left MCA | Idiopathic | Surgical removal | Recovery (complicated 2ry wound infection) |
| LIN, 2004 (75) | 23 | Male | None | MI (acute proximal LAD lesion), TIA, transient loss of vision 5 min the day before presentation. | Q waves V1 to V5 and low voltage limb leads | Brain (TIA) | Acute MI and premature coronary artery disease | Heparin then surgical removal | Recovery and discharge |
| Kuroki, 2012 (76) | 58 | Female | None | MI (acute LAD occlusion), chest pain for two days | Anterior ST elevation | None | Acute MI | Surgical removal | Recovery |
| Rao, 1990 (77) | 71 | Female | NR | Constitutional symptoms mostly Dressler's syndrome following silent MI, masked by RBBB. | Sinus rhythm with RBBB then AF | None | Acute silent MI | Surgical removal | Recovery |
| Zaikokuji, 2018 (78) | 68 | Female | Bipolar disorders | Gastric ulcer (upper abdominal discomfort) | ST-segment depression and T wave inversion V3-V6 | None | Takotsubo cardiomyopathy | Surgical removal | Recovery (discharged on day 15 postoperative) |
| Ho, 2008 (79) | 29 | Male | Cocaine use | Embolic stroke | NR | Brain | MI (substance abuse) | Surgical removal | Recovery |

Table II: Thrombus characteristics. LV, left ventricle; EF, ejection fraction; NR, not reported; LVOT, left ventricle outflow tract.

|  |  |  |  |
| --- | --- | --- | --- |
| Author/ year | LV thrombus Site | Thrombus dimensions by echocardiography (Cm)/ (pathology specimen) | Other significant echocardiographic findings |
| Kumar, 2016 (30) | Apical and anterior mitral leaflet | 3.8\* 1.9/ pathology (4\*2\*1) | EF 50%; hypokinetic apex and apical segment. |
| Grewal et al., 2020 (31) | Apical | 1.9\*1 | Normal systolic function, no segmental wall motion abnormality |
| Garg et al., 2021 (32) | Apical, apical anterior, lateral, and inferior walls. | The largest 3\*3 | Moderately reduced LV function |
| Cousin et al., 2014 (33) | Apical | 3.3\*2.5 | EF 5- 10% and dilated LV with global hypokinesia |
|  | Apex, septum, and anterior wall | 4.2\* 3.5 | EF 15- 20%, global hypokinesia, apical akinesia, and dilated right ventricle. |
|  | Apical | 2.5\* 1.7 | Moderate global hypokinesia, severe hypokinesia inferiorly and inferoseptally. |
| Kanazawa et al., 2016 (34) | Apical | NR | EF 40%, akinesia from the anteroseptal wall to the apex. |
| Allende et al., 2010 (35) | Mid-anterior wall | 2.5\*1.4 | On the first day, normal systolic function and mild left atrial enlargement. On the second day, EF 52%, and hypokinesia of the apical segments. |
| Lutz et al., 2007 (36) | Apical | 1.3\*1.7 (1\*0.9\*1.7 after excision) | Normal LV systolic function |
| Nili et al., 1988 (37) | interventricular septum | 4\*3 | EF 26%, dilated LV, akinetic septum, and dyskinetic anterior wall. |
|  | Apical | 2\*2 | EF 28%, |
|  | NR | NR (two pedunculated thrombi) | NR |
|  | NR | 1.5\*2 | NR |
| Kharwar, 2014 (38) | Interventricular septum | 2.5\*2 | EF 32%, global hypokinesia, and dilated four chambers. |
| Ito, 2020 (39) | Ventricular free wall. | NR | Ef 25% and anterior wall akinesia |
| Singal, 2021 (40) | Apical | 3.4\*1.6 | Biventricular systolic dysfunction (EF of 20%), global hypokinesia, and severe central MR |
| Tanaka, 2014 (41) | Apical | 3\*3 | EF 10% |
| Jeganathan, 2011 (42) | Apical | 3\*1 | Normal |
| Janula, 2021 (43) | Apical | NR | EF 35% with akinetic septum, anteroseptal, and anterior walls |
| Marchini, 2009 (44) | Interventricular septum | 4.6\* 1.2 | EF 41%, an akinetic distal portion of the septum, anterior wall, and the whole apex. |
| Mukai, 1991 (45) | lateral wall (near the apex) | 1\*1 (1.2\*1\*0.7) | EF 44%, global hypokinesia, akinetic apex, and dilated LV |
| Park, 1986 (46) | Apical | 7\*3 (7\*4.5\*2.7) | Slightly enlarged LV cavity, akinetic apex, and distal septum |
| Bakhtiari, 2012 (47) | Posterior wall and anterolateral wall (mid-segment) | Posterior wall: 2.5\*1.8 (2.5\*2 after excision).  Anterolateral wall 2.8\*2.2 (3\*4 after excision) | Mild LV dilatation with LVEF 35-40%, akinetic basal inferior, and hypokinetic lateral wall (basal and mid segments) |
| Chen, 1981 (48) | Apical | NR | dilated LV with global hypokinesia. |
| Rester, 2001 (49) | Apical | 2.1\*2.5 | LVEF decreased from 40% (anteroseptal and inferior wall hypokinesia, LA enlargement, mild MR, and mild TR) to 25%. |
| Azari, 2021 (50) | Apical | 1.7\*1.9 | LVEF 40% |
| Chen, 2008 (51) |  | NR | NR |
| Kumar, 2022 (52) | Apical | 3.4\*1.1 | Normal LVEF |
| Eren, 2013 (53) | Apical | 1.8\*0.8 | Normal (LVEF 67%) |
| Daley, 1987 (54) | Posterior wall | 2 | Normal |
| John, 1991 (55) | Apical | 1\*2.5 | Normal |
|  | Apical | 1\*1.5 | Anteroapical akinesia |
| Lewin, 1980 (56) | Anterolateral | NR | Anterior wall aneurysm. |
| Shetty, 2011 (57) | posterolateral papillary muscle | NR | Normal |
| Vaganos, 1989 (58) | Apical | 3.6\*2.9\*1.1 (after excision) | Normal |
| Lew, 1983 (59) | Apical | 1.5 | LV dilatation and septal hypokinesia. |
| Chamsi-Pasha, 2009 (60) | Apical (apical septal) | 1.5\*2.7 | LVEF 35%, global hypokinesia, and mild mitral regurgitation. |
| Early, 2001 (61) | Apical | 2\*2 | LVEF 25% and akinetic apex |
| Wohlfarter, 1991 (62) | Septum | 3.5\*2 | NR |
| Palazzuoli, 1994 (63) | Apical | 1.5 in the longest diameter | NR |
| Jeon, 2012 (64) | Apical | 4.3\*4.2 | Global systolic dysfunction with LVEF 19% AND dilated LV (6.5 cm). |
| Chirillo, 1996 (65) | Apical | 10 at the longest dimension. | NR |
| DeWitt, 1988 (66) | Apical | 2\*2.5 | Normal |
| Hwang, 1985 (67) | Apical | 4 to 5 | LVEF 26% and anterior apical aneurysm. |
| Çil, 2013 (68) | Apical (apical septal) | 4\*1.1 | Left ventricle dysfunction (LVEF 26%) and apical aneurysm |
| Seitz, 2012 (69) | Apical (apical inferior) | 2.8\*1.6 (3\*1.5) | Left ventricle dysfunction with apical to mid-anterior hypokinesia. |
| Manasrah, 2022 (70) | Apical | Apical thrombus measuring 1.8\*1.2 (2.3\*2.1 by TEE at the anterolateral wall)  and 1\*0.5 (Apex) | Normal LV function with no segmental wall motion |
| Jeganathan, 2011 (71) | Apical | 3\*1 | Normal |
| Erkal, 2017 (72) | Septum | 1.3\*1.1 | LVEF 65% |
| Maruri-Sánchez, 2019 (73) | Septum | 1.6\*1.7 | Normal (LVEF 60% with no regional wall motion) |
| MULLER, 1996 (74) | Apical | 4\*2 | Normal LV function |
| LIN, 2004 (75) | Between the septum and inferior wall close to the LVOT | 1. 3\*2 (3\*2\*2) 2. 1\*1 (1\*1\*0.5) | Normal |
| Kuroki, 2012 (76) | Apical | 1. 1.5\*1.4\*1.3 2. 0.3\*0.2\*0.1 | Apical and anteroseptal wall motion and mild mitral regurgitation |
| Rao, 1990 (77) | Apical | NR | On day 2: mid and apical anterior akinesia |
| Zaikokuji, 2018 (78) | Apical | NR | Highly mobile, pedunculated mass arising from the left ventricular apex and protruding into the mitral orifice |
| Ho, 2008 (79) | Apical | 1.9\*1.8 (decreased to 1.8\*1.1 on the 5th day but became more mobile) | LVEF 42.1%; akinetic apical and mid segments |
|  | Apical | 2.5\*1.5 | LVEF 45%; apical anterior dyskinesia; apical septal, inferior, and lateral hypokinesia. |