FATAL SYMMETRICAL T INVERSION-NEVER TO MISS- A CASE REPORT

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ABSTRACT

Isolated T inversion in patients with chest pain is considered benign on most instances when compared with ischemic ST-T changes especially if patient is asymptomatic at the time of presentation. It is crucial for emergency physicians and internists to be able to recognize some typical T inversion patterns, as they occur in the symptom-free periods and represent a pre-infarction state that needs early intervention. Here we describe a case where delay in intervention resulted in mortality.

KEYWORDS

T inversion, Wellen Syndrome

Description

A 70 year Indian female patient presented in the cardiology outdoor for evaluation of her chest pain. She had retrosternal chest heaviness with left arm pain 2 days back after her usual dinner and associated with profuse sweating which persisted for 15-20 minutes and subsided by home based treatment. She was completely symptom free for 1 day when she presented to OPD. She was evaluated with electrocardiogram, echocardiography, and cardiac biomarkers initially. Her ECG revealed deep symmetrical 5 mm of T inversion in lead V1-V6 with flat ST segment (Figure 1). Her echocardiography was normal without any regional wall motion abnormality with normal LVEF 65%. Her cardiac biomarker Troponin I was within normal limits 0.01ng/ml so with discrepant finding for further confirmation patient was advised for coronary angiography on same day. Transradial coronary angiography from right hand done which revealed critical 95% stenosis in Proximal Left Anterior Descending Artery (LAD). (FIGURE 2, 3) Patient was advised for immediate angioplasty and stenting to LAD but refused by her attendant for financial constraints and planned for home based treatment. She was completely symptom free for 1 day when she presented to OPD. She was evaluated with electrocardiogram, echocardiography, and cardiac biomarkers initially. Her ECG revealed deep symmetrical 5 mm of T inversion in lead V1-V6 with flat ST segment (Figure 1). Her echocardiography was normal without any regional wall motion abnormality with normal LVEF 65%. Her cardiac biomarker Troponin I was within normal limits 0.01ng/ml so with discrepant finding for further confirmation patient was advised for coronary angiography on same day. Transradial coronary angiography from right hand done which revealed critical 95% stenosis in Proximal Left Anterior Descending Artery (LAD). (FIGURE 2, 3) Patient was advised for immediate angioplasty and stenting to LAD but refused by her attendant for financial constraints and planned for revascularization after seven days.

CONCLUSION

As soon as the pattern of ECG with diagnosis of Wellens syndrome is made or suspected, one should consult a interventional cardiologist because the definitive treatment is cardiac catheterization with PCI. Until this occurs, treat Wellens syndrome similarly to an acute myocardial infarction including antplatelet therapy with aspirin, anticoagulation with heparin, and nitrates and beta blockers. However, it is important to note that Wellens’ patients do poorly with medical management alone, and as stated above, definitive treatment is procedural. All patients should be admitted even if they are pain-free and stable in ICU. Because Wellens syndrome patients have critical narrowing of the LAD coronary artery, a stress test should be avoided as this can precipitate an acute myocardial infarction and sudden death. Upon coronary angiography, the cardiologist can plan for revascularization of the LAD coronary artery.

REFERENCES


Figure-1 12 lead ECG showing symmetrical deep T inversion in precordial lead.

Figure-2 & 3 Radial Cag Revealed Lad Proximal 95% Stenosis.