PP76 TOMBSTONE STEMI AND A WRAPAROUND LAD

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INTRODUCTION

Tombstone ST-elevation is a type of ST-elevation with a specific morphology and is observed in the early phase of acute myocardial infarction. It is associated with poor prognosis due to extremely rapid and extensive myocardial damage. We describe a case of 'Tombstone' STEMI which was managed at our Emergency Department (ED) with a favourable outcome.

CASE DESCRIPTION

A 61-year-old male presented to the ED with a 6 hour history of restrosternal chest pain. He is an active smoker with a background history of diabetes and hypertension. He was normotensive and mildly tachycardic. Cardiovascular and respiratory examination was unremarkable. His 12-lead electrocardiogram (ECG) showed extensive ST elevation myocardial infarction (STEMI) in the anterolateral and inferior leads**.** 'Tombstone' ST elevation were seen in lead V2-4. Primary percutaneous coronary intervention (PCI) was performed to his mid left anterior descending artery (LAD). He made an uneventful recovery.

DISCUSSION

In STEMI, the ST-segment tends to become convex upwards and in some cases it may surpass the peak level of the R wave. ST-segment elevation surpassing the R wave exhibits a morphological appearance that resembles a tombstone**.** The tombstone ECG pattern is a result of an unprepared large myocardial area exposed to severe ischemia. Patients with tombstoning are likely to have high-grade stenosis of the proximal LAD. In addition, our patient had a "wraparound" LAD, a variant LAD that wraps around the cardiac apex. The high-grade stenosis of his proximal LAD not only affected his anterior lateral LV wall, but also the inferior LV wall resulting in an extensive myocardium involvement. Fortunately he received prompt primary PCI and made an unremarkable recovery.

CONCLUSION

Tombstone STEMI is associated with poor prognosis due to extremely rapid myocardial damage as a result of poor collateral flow, severe ischemia and unprepared myocardium. It should be considered as a distinct and more severe entity of STEMI. A Tombstone STEMI should trigger an appropriate and timely intervention, in order to improve the outcomes and prognosis in this high-risk group**.** Failing to treat this diagnosis with respect may eventually lead patients to their tombstone.

KEYWORDS

Tombstone STEMI, Tombstone ECG, Wraparound LAD