

## Life on the Line: The Critical Role of Early Diagnosis in Wellens Syndrome Survival

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### Background

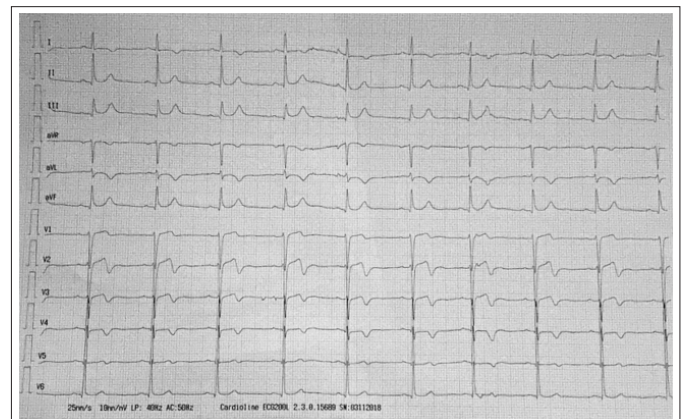
A 40-year-old physically active, normal-weight man presented to the emergency department with retrosternal chest pain at rest radiating to the left arm, accompanied by sweating. The pain was not influenced by movement or breathing. He had no signs of heart failure. Vital signs were stable except for mildly elevated blood pressure (140/90 mmHg). The patient was a heavy smoker with a positive family history of cardiovascular disease.

### Case History

ECG showed biphasic T waves in V2-V3 and inverted T waves in D1 and aVL. Cardiac enzymes were elevated. Wellens syndrome was suspected, and urgent coronary angiography revealed an acute atherothrombotic occlusion of the mid-LAD, successfully treated with PCI and DES placement. A moderate stenosis in the distal right coronary artery was also noted. Post-procedure, a short episode of non-sustained ventricular tachycardia occurred. The patient remained stable, with preserved left ventricular function (EF 55%) and unremarkable Holter monitoring. He was discharged with optimal medical therapy and advised to quit smoking [1,2].

### Discussion

Wellens syndrome indicates critical LAD stenosis and is characterized by specific ECG changes. It represents a pre-infarction stage with high risk of anterior myocardial infarction. Early recognition and prompt coronary angiography are essential, as medical therapy alone is insufficient to prevent adverse outcomes.



**Imagine 1**

### References

1. De Zwaan C, Bar FW, Wellens HJ (1982) Characteristic electrocardiographic pattern indicating a critical stenosis high in left anterior descending coronary artery in patients admitted because of impending myocardial infarction. *Am Heart J* 103: 730-736.
2. Rhinehardt J, Brady WJ, Perron AD, Mattu A (2002) Electrocardiographic manifestations of Wellens' syndrome. *Am J Emerg Med* 20: 638-643.

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