



Wellens Syndrome: A Case Study

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ABSTRACT

Wellens Syndrome is a disorder of cardiovascular system in which there is proximal stenosis of the left anterior descending (LAD) coronary artery. Due to involvement of LAD it is known as Anterior, Descending T-wave Syndrome. Clinically patient has no symptoms like chest pain but slight elevation in the levels of cardiac enzymes is present. In ECG particularly T-wave changes present in leads V1-V2 that is deeply inverted and biphasic.

Keywords: Wellens Syndrome: Cardiac Enzymes, Symptoms, LAD.

1. Introduction

Wellens Syndrome is also known as Anterior Descending T-wave Syndrome. In the era of 1980s it was first founded by de Zwaan, Wellens and his colleagues, they are identified many patients with unstable angina who had specific pericardial T-wave changes and simultaneously develops a large anterior wall myocardial infarction.² When patient come to emergency department symptoms of Wellens syndrome are usually no chest pain along with slightly elevation in the cardiac enzymes approx less than twice the upper limit of normal value.³

Men have 3 times more risk to develop Wellens syndrome than women, and chance of get disease is increased after the age of 60 years. Smoking, High blood pressure and Diabetes mellitus are the main risk factors for the development of disease. 25% cases of Wellens syndrome have complaint of angina chest pain.⁴

Wellens syndrome criteria includes:-

- History of angina chest pain.
- Normal or slightly elevated cardiac enzymes.
- Characteristics T-wave changes.
- ECG is without Q wave, without significant ST-segment elevation, and with normal precordial R wave progression.²

In acute cases of Myocardial infarction it is treated by medical management for several weeks. For definitive management of Wellens syndrome we have to choose cardiac catheterization with percutaneous coronary intervention (PCI) to get relief from symptoms of Wellens syndrome.¹

2. CASE PRESENTATION:

A 59 years old male patient comes to cardiology department of IGMC, Shimla with his chief complaints of chest pain from last 3-4 months while walking and radiating to left shoulder and relieved by rest. On physical examination Blood Pressure is 130/80mmHg

Past Medical History

Coronary Artery Disease with ST Elevation Anterior Wall Myocardial Infarction (CAD with STEAWMI) and Post MI Angina since November 2021.

Past Medication History

He was taking Tab. Metolar XL 25 mg OD and Tab. Nitroglycerin SOS since November 2021.

3. GENERAL EXAMINATION

Weight: 58 kg

Height: 5foot 5inches.

BMI: 22.13 kg/m²

Physical activity: Daily home routine, work in fields (he is farmer) and having pain in chest while doing field work and relieved by rest.

Special Investigation

ECG, CBC, RFT, LFT, FBS, Chest X-Ray.

4. TREATMENT

Tab. Rosuvastatin 40mg OD, Tab. Metoprolol XL 25mg OD, Tab. Ramipril 2.5mg OD, Tab. Ecosprin 75mg OD, Tab. Clopidogrel 75mg OD and Inj. Lomocaine 0.4ml S/C Stat.

5. INTERVENTION

CART + PTCA were done for the patient.

In post-operative period patient was advised to take adequate rest and avoid mobilization by the consulting physician.

6. CARE PLAN

Physical Activity: In 1st and 2nd post operative day limit the mobilization of patient but after that mobilization of body is increased as per individual capacity but make sure activity does not cause exertion or any breathing issue.

Eat heart healthy diet: Eat more fibers, fruits and vegetables, low fat or non-fat dairy products, whole grains.⁵

Avoid precipitating factors: Avoid tobacco, smoking and alcohol intake in your lifetime.

7. OUTCOME

After the CART + PTCA intervention the patient has relieved from chest pain.

On the time of discharge the patient was advised by health care staff to take prescribed medication according to dose and frequency. Strictly told the patient not miss any dose of any single medication.

Patient was advised to come for follow up after 1 month in the OPD department of Cardiology.

8. DISCUSSION

Wellens Syndrome is a disorder of LAD coronary artery, also known as **Anterior, Descending T-wave Syndrome**. This syndrome is 3 times higher in men's than women's and risk is increased after the age of 60 years. Risk factors for this syndrome were Smoking, High Blood Pressure and Diabetes Mellitus. Main symptoms are 25% cases experience angina chest pain but usually patient come up with no chest pain, on investigation slightly increased cardiac marker and T-wave changes in ECG. Acute cases were managed by medical management but for long duration cases Cardiac catheterization with Percutaneous coronary intervention is preferred by consulting physician.

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