



MODERN TREATMENT OF PATIENTS WITH UNSTABLE ANGINA PECTORIS

I. Nikolova^{1*}, D. Mitev¹, S. Karadaliev¹, Z. Kamenova², Iv. Vutsov³,
M. Stoinev³, D. Mitsov³

¹Student in medicine, Medical Faculty, Trakia University, Stara Zagora, Bulgaria

²Dept. of Internal Medicine, Medical Faculty, Trakia University, Stara Zagora, Bulgaria

³Specialised Hospital of Cardiology, Jambol

Unstable angina pectoris

Definition - Unstable angina is an acute coronary syndrome due to a restriction of coronary blood flow without development of myocardial necrosis [1]. The classification of unstable angina is made of E. Braunwald. It consists of:

severity of angina

pain symptom

Medication

Etiopathogenesis of unstable angina includes of: Rupture of atherosclerotic plaque with overlaid not occlusive thrombus and Spasm of the subpericardial artery. [2, 3]

Dyagnosis of the unstable angina is due to: pain lasting 10 min, retrosternal localization and irradiation to the left hand, unresponsive to nitroglycerin

ECG data, that leads to unstable angina is: ST-depression over 0.5 mm, deep inversion of T wave greater than 3 mm;

Laboratory tests that lead to unstable angina are: negative enzymes of myocardial necrosis; Increased enzymes without ST-depression-NSTEMI., ↑CRP hs

Treatment of the unstable angina is established by the principles of: hospitalization to the nearest hospital with a catheterization

laboratory, analgesic, antiplatelet agent, unfractionated heparin anticoagulant, glycoprotein IIb / IIIa receptor inhibitors, nitrates, beta-blockers, calcium channel blockers, and most important Percutaneous transluminal coronary angioplasty (PTCA) with stent implantation of. Today in modern medicine it is used two kinds of stents - BMS – (Bare Metal Stent) and DES – (Drug Eluting Stent)-the drug eluting stents have a trend to reduce re-stenosis.[4, 5, 6]

First clinical case

Male 54 years old with Wide Chest pain lasting 10 min; Shortness of breath; Signs have accelerated a few days and passed while taking nitroglycerin.

Status: general condition – poor; Mucous membranes - pale pink; Respiratory System - two chest halves take equal participation in breathing. Vesicular breathing without wheezing; Cardiac System - rhythmic heartbeat, HR 93/min, BP 135/95 mmHg. Silent Heart tones; Extremities - swelling, decreased pulsation of peripheral arteries.

- Past cardiovascular incidents: Myocardial Infarction/year: 1997/; Two PCTA's with: occlusion of the OM1 and CAD; 80% stenosis a.subclavia sin.

- Other supporting diseases: dyslipidaemia; Type 2 diabetes; Diabetic polyneuropathy; Grade III hypertension.

Risk factors: Age; Overweight; Family history;

***Correspondence to:** Irena Ivanova Nikolova,
Stara Zagora, Armeyska 16 str, ap. 41,
tel:+359885560708, email: roshko337@emai.bg

Myocardial enzymes before PCTA:

CPK	676	reference range-male-38-174IU / l, female-26-140IU / l
CK-MB	99	reference range-25
TnT	7.7	reference range <1.0 ng / ml

- ECG before PCTA: Sinus rhythm; indifferent type; pathological Q-II, III, AVF; negative T-wave -3 mm I, II, AVL, V4-V6; Heart rate 93/min.



- Echocardiography: LVEF 36% (normal-55-75%); remodeling with increased LV dimensions and volumes; akinesia of LVAV; dyskinesia of INC

- PCTA at the date of submission: LCA: stem-Ostial 50% stenosis, 70% stenosis with lightening in the distal segment; LAD-70% stenosis in ostial midsize segment, 70% stenosis in middle segment after bifurcation with D2; LCx-ostial 80% stenosis, chronic occlusion in the proximal segment; RCA-occluded in proximal segment, svg-occluded after ostium, s.v.g.-OM1; S.V.G.-LAD-Y graft to RM1-RM2 jump.-ostial stenosis 70% and 80% stenosis of the branch proximal to LAD; A.subclavia sin.-critical stenosis before bifurcation

- After the intervention is recommended to have: Maximum anti-ischemic therapy; Continuous administration of aspirin 100 mg; If recurrent symptoms to undertake PCI on LM / LAD and S.V.G.-LAD-Y graft to RM1-RM2 jump.

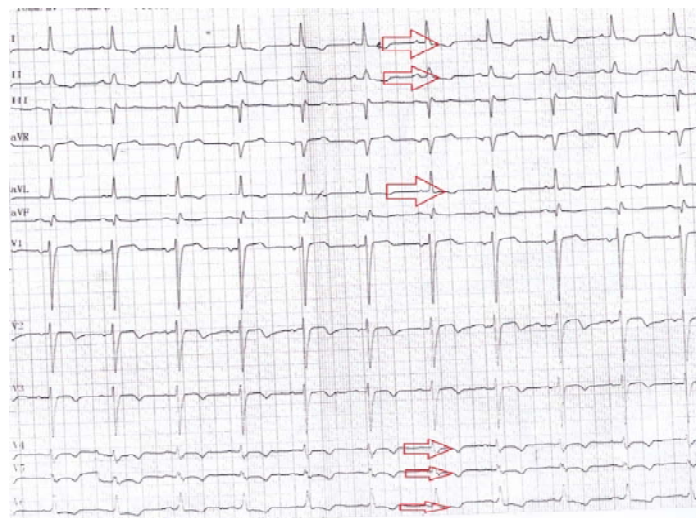
Seeral days later the patient has Re-PCTA with implantation of: 1.Stent in distal LM and ostium of LAD; 2.Stent in ostium of s.v.g.-LAD-Y graft to RM1-RM2 jump; a stent in the LAD proximal segment; An optimal angiographic result, with TIMI-3 flow to the periphery of the vessel. (TIMI blood flow is measured from 0 to 3, with higher values corresponding to the best perfusion)

- Myocardial enzymes after PCTA:

CPK	257	reference range-male-38-174IU / l, female-26-140IU / l
CK-MB	31.3	reference range-25
TnT	11.8	reference range <1.0 ng / ml

ECG after PCTA: Sinus rhythm; indifferent type; pathological Q-II, III, AVF; negative T-

wave 1 millimeter I, II, AVL, V4-V6; Heart rate 75/min.



- The patient was discharged in stable cardiopulmonary status with preposition for: Control of risk factors; blood pressure; heart rate; adjust therapy if necessary

Second clinical case

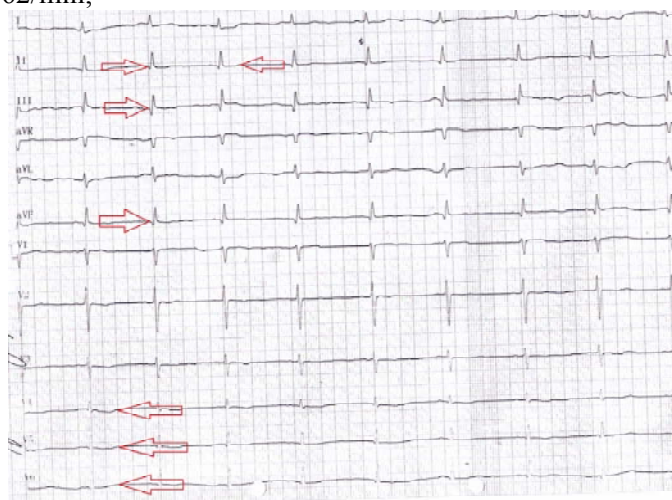
- Male 56 years old with Pain behind the sternum extensively with irradiation of both hands, began at rest.
- Status: general condition – poor; Mucous membranes - pale pink; RS - two chest halves take equal participation in breathing, vesicular breathing without wheezing; CS - rhythmic heartbeat, HR 88/min, BP 99/65 mmHg, cardiac clear tones without noises; Extremities

- no edema, preserved pulsations of peripheral arteries

- History of disease: PCI of RIM/year: 2008 / and re-PCI of RIM/year: 2009/; Stent of LM-LCx and in-stent re-stenosis/year: 2009/; Condition after Aorto-coronary bypass x3 (LIMA-LAD, S.V.G.-OM, S.V.G.-RCA) /year: 2007 /;
- Other supporting diseases: dyslipidaemia; Type 2 diabetes; Grade III hypertension.
- Risk factors: Age; Gender.
- Myocardial enzymes before PCTA:

CPK	770	reference range-male-38-174IU / l, female-26-140IU / l
CK-MB	80.7	reference range-25
TnT	5.3	reference range <1.0 ng / ml

- ECG before PCTA: Sinus rhythm; indifferent type; Q-wave in II, III, aVF; ST-depression in II, V4-V6; Heart rate 62/min;



• Echocardiography: LVEF -51%; Lower basal akinesia. Anteroseptal Hypokinesia and LVAW hypokinesia.

• PCTA day after submission: LCA: trunk-20% distal stenosis; LAD-ostial occlusion; LCx-ostial occlusion; RIM-80% in-stent re-stenosis in the proximal segment, 90% in the midsize segment; RCA-occlusion in mid

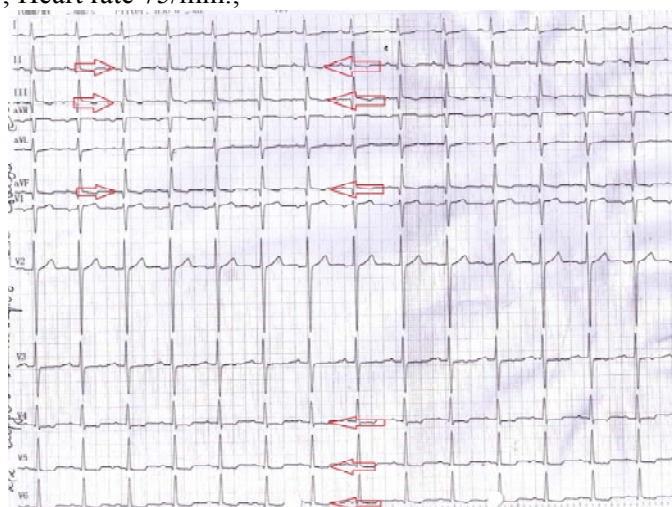
segment; SVG-OM-occluded; SVG-RCA-occluded;

• Implanted: Stent of RIM; An optimal angiographic result, with TIMI-3 flow to the vessel periphery.

• Myocardial enzymes after PCTA:

CPK	2860	reference range-male-38-174IU / l, female-26-140IU / l
CK-MB	90.1	reference range-25
TnT	13.0	reference range <1.0 ng / ml

• ECG after PCTA: Sinus rhythm; indifferent type; Q-wave in II, III, AVF; Negative T wave in II, III, AVF, V4-V6; Heart rate 75/min.;



• The patient was discharged in stable cardiopulmonary status with recommendation of: Control of risk factors; blood pressure; heart rate; adjust therapy if necessary

• The low risk, the high informativeness and the great efficiency are making Unstable angina invasive methods in essential for the diagnostics and the treatment!

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