

CASE STUDY – OBESITY, METABOLIC SYNDROME

Patient: Peter, 48 years, 178 cm, 81 kg, BMI 25,6, smoker

Lab values: pulse 60/min; cholesterol (TC) 8,8 mmol/l; LDL cholesterol 6,31 mmol/l; triglycerides (TG) 0,9 mmol/l; HDL cholesterol 1,74 mmol/l; liver enzymes: creatinase (CK), glycaemia, C-reactive protein within norms.

Family history: Mother – diabetes mellitus II. type with serious complications, obesity, progressed atherosclerosis, 3 heart strokes—first one in 50 years, died in age of 61 years on brain stroke.
Father – in age of 60 first brain stroke, died in age of 68 years on heart stroke.

Personal history:

- In 40 years he was diagnosed with hypertension.
- Blood pressure moves between 120/70 mm Hg up to 150/80 mm Hg.
- Approximately 5 years ago there was quite frequent fluctuation of values of blood pressure up to 190/110 mm Hg and it was accompanied by palpitations and tremor.
- He was diagnosed with hypothyreosis which is now compensated and the patient is without any complications.
- 6 years ago he underwent operation of prolapsed plate. Now he still has pain in lumbosacral area with progression to hips and limbs.
- In last 2 years when exercising he feels pressure on chest which is currently not accessed yet.

Work-social anamnesis:

- He works as part time job as door keeper and he is in partly handicapped pension (due to operation of the backbone).
- The unstable blood pressure was mostly appearing 10 years ago when the patient was repeatedly exposed to stressful situations (loss of work, divorce, death of parents).
- Currently he is divorced and the health problems partly disappeared after solving the family problems.

History of allergies: Allergy on Biseptol – skin rash.

Drug history: Letrox 50 ½ – 0 – 0
 Betaloc SR 200 ½ – 0 – 0
 Dolmina, Surgam eventually, when the pain worsens

He gradually used these *hypolipidemics*:

Simvacard 20, Sortis 10, Simvastatin-Ratiopharm 20, Lescol XL 80, Torvacard, Atoris 10, Ezetrol (in combination), Lipanor, Simgal 10, Apo-Lovastatin 40, he currently has no hypolipidemics medicine

Main problem:

According to the high levels of cholesterol and LDL cholesterol the patient was prescribed Simvastatin (20 mg). Serious adverse reaction appeared – pain in right costal margin, bitter taste in the mouth, dyspepsia, nausea. Thanks to this ADR he stopped using simvastatin. Sonography of belly area was done but there were no changes in pancreas, liver or gall bladder. The doctor prescribed another statins (atorvastatin 10 mg, lovastatin 40 mg) and even these were badly accepted by the patient. After changing another 10 medicines within several months the patient stopped taking these Rx medicines and he completely stopped visiting the doctor.

Tasks:

1. Describe metabolic syndrome as a disease. What are the markers of metabolic syndrome?
2. Perform an analysis of prescription drugs, give active substance classification according to ATC classification, a brief mechanism of action of individual products, check the dosage and method of use (morning / evening, before / after meals, etc.)
3. Adverse effects. What are the most common side effects of statins? What indicators are needed to monitor the treatment of lipid-lowering drugs? And under what circumstances it is necessary to discontinue hypolipidemics?
4. What is patients' cardiovascular risk?
5. What are the goal lab levels (Triglycerides, LDL) at the patient with risk factors?
6. Are regime measures sufficient or is pharmacology treatment necessary?
7. What pharmacological treatment of hypertension would you recommend for this patient?
8. What diet recommendations would you give to this patient (food, liquids, exercise, etc.)?
9. What would you recommend in this case to improve the tolerability of drugs?
10. Smoking: What effect does smoking (eventually its cessation) on patient's prognosis? What options do we have for the treatment of tobacco dependence?