
Snezana Marinkovic¹

ROSUVASTIN IN THE TREATMENT OF HYPERLIPROTEINEMIA IN ENDOCRINE PATIENTS – OUR EXPERIENCE

Drug therapy for the treatment of hyperlipoproteinemia is introduced when the change in lifestyle did not lead to the desired level of cholesterol and triglycerides, and was applied for at least three months.

The choice of drug therapy depends not only on the severity and type of lipid disorder, but also on the overall cardiovascular risk of the patient, as well as on the overall health condition of the person we are treating.

Statins are the drug of choice in patients with elevated total and LDL cholesterol, regardless of whether it is a primary or secondary disorder.

In patients with endocrine diseases, it is often necessary to use statins due to elevated levels of cholesterol and triglycerides, which can sometimes occur at the very beginning of the disease or during the treatment of the disease itself. Sometimes even just an elevated level of fat in the blood can be the first and only symptom of hypothyroidism. In diabetics, lipid status disorders can occur due to an increase in triglyceride levels, a decrease in HDL and an increase in LDL cholesterol.

Metabolic syndrome is characterized by an abnormal distribution of adipose tissue and a disorder of lipid status, so it is necessary to correct body weight and in most cases include statins to correct blood lipid levels.

In menopause, due to reduced estrogen levels, there can be an increase in total and LDL cholesterol levels, as well as an increase in triglyceride levels, as well as a decrease in HDL cholesterol levels, which leads to an accelerated process of atherosclerosis.

Blood lipid disorders can also occur in other endocrine diseases, acromegaly, hypocorticism, hypopituitarism and pheochromocytoma.

Rosuvastatin Atb - Rusovas, is a drug that contains the active substance rosuvastatin - calcium. It is applied once a day, regardless of the meal. The drug is discontinued when an allergic reaction or pregnancy occurs. Rosuvastatin Atb participates in lowering LDL and raising HDL cholesterol levels, but also reduces the production of bad cholesterol. Even after reaching a satisfactory value of cholesterol and triglyceride levels, the patient should be left at the maintenance dose, so that fat deposits do not form.

¹ Snezana Marinkovic, Internist - endocrinologist, Special Hospital "Cigota" Zlatibor

Case report

Patient BT, 46 years old, has been treated for diabetes for 15 years, on intensified insulin therapy. From the beginning of the treatment of diabetes, he knows about the increased level of cholesterol and triglycerides in the blood.

Elevated blood fat levels were treated with atherovastatin. He occasionally discontinued atherovastatin therapy on his own initiative. Positive family history in terms of CVD and elevated blood fats (HLP).

Objective: Obese in general type, BMI: 31 kg / m², in a bad mood, complains of headache and frequent urination.

He was treated in another institution until January 18, with occasional visits to an endocrinologist.

At the first examination in our institution, on January 18 this year, high glycemia level, morning values up to 18.0 mmol / l, HBA1C: 9.8%, Cholesterol: 7.90, HDL: 0.56, Triglycerides: 18.98, AST : 46, ALT: 52.

In the therapy of increased insulin dose, rosuvastatin 20 mg was included, 1 tablet in the evening, dietary correction was advised and rapid control of all parameters was scheduled for a month.

At the control exactly after one month, on February 18, 2021, the values of morning glycemia improved, 13.2 mmol / l, HBA1C: 9.0% and significantly improved the levels of cholesterol and triglycerides in the blood.

Cholesterol level in the blood is 5.21, HDL: 0.60, Triglycerides: 13.10, AST level: 22, ALT: 13.

The patient lost 4 kilograms in body weight, which also contributed to the improvement of the results.

The treatment of the patient with the same therapy with insulin and rosuvastatin was continued.

The next control is scheduled for two months, April 13, 2021.

Now the patient is in a much better mood, because he lost another 5 kg in body weight and improved his results.

New morning glycemia level 9.0mmol / l, HBA1C, 8.1%, which is still for correction.

Cholesterol and triglyceride levels gave an excellent response to rosuvastatin therapy in just 4 months.

Now the cholesterol level is: 4.28, HDL: 0.74, Triglycerides: 8.00, AST: 23, ALT: 24.

My patient still needs correction of diet, body weight, insulin dose, as well as triglyceride levels.

Intensified insulin therapy and rosuvastatin were continued in the same dose, and the next control of all parameters was scheduled for 4 months.

Case report

A 52-year-old patient ST, in preparation for surgical treatment, controlled the hormonal status of the thyroid gland, because he had previously been treated for hyperthyroidism. Back 2 years without thyrosuppressive therapy.

The patient denies the existence of symptoms in terms of hyper and hypometabolism.

Thyroid hormone status: FT4: 9.80, TSH: 40.58. TT: 105 kg.

Lab: Cholesterol: 8.47, HDL: 1.10, TrigL: 5.09. (May 12, 2021).

Due to the scheduled operation for May 21, levothyroxine therapy was prescribed, in a dose of 50 mcg for the first 3 days, then 100 mcg, until control and rosuvastatin 20 mg, 1 tablet in the evening.

A quick check-up is scheduled for May 19, due to the operative treatment, practically 7 days from the beginning of the therapy.

The patient comes to the scheduled control with the required findings.

Thyroid hormone status: FT4: 12.6, TSH: 19.1. TT: 100kg.

Lab: Cholesterol: 7.44, TrigL: 2.74.

Increased dose of levothyroxine, and rosuvastatin still remains in the same dose.

The patient was not approved for treatment under general anesthesia, due to unregulated TSH levels and elevated blood cholesterol and triglyceride levels.

New control of FT4, TSH, cholesterol, triglycerides, AST and ALT scheduled for a month.

Both levothyroxine and rosuvastatin therapy have been shown to be very effective in a short time.

The patient comes for the scheduled control on June 22, 2021, he feels well, he brings new analyzes of thyroid hormones and cholesterol and triglyceride levels.

Thyroid hormone status: FT4: 21.5, TSH: 0.27. Cholesterol: 5.04, triglycerides: 1.87, AST: 37, ALT: 29.

Remains at a dose of 150 mg levothyroidine, every morning and a dose of rosuvastatin corrected to 20 mg, every other day.

The patient is now given approval for the planned operation under general anesthesia.

Case report

The KS patient, 52 years old, has been treated for reduced thyroid function for seven years, continuously on substitution therapy.

It is regularly monitored, with the hormonal status of the thyroid gland being within normal limits, with substitution, but the level of cholesterol and triglycerides in the last three controls is elevated. Dietary correction is advised, as well as athero-

vastatin therapy in a dose of 20 mg, daily. One year after the appearance of elevated blood fats, atherovastatin was replaced by rosuvastatin in the same dose.

The patient came for a regular check-up in January this year (January 5).

Thyroid hormone status: FT4: 19.7, TSH: 0.97.

Cholesterol: 7.76, HDL: 1.39, LDL: 4.64, Trigl: 3.80, AST: 31, ALT: 26.

Recommended therapy with levothyroxine in the current dose of 100mcg, every morning and rosuvastatin tablets in a dose of 20mg, 1 tablet every day.

The next control is scheduled for 6 months, with the patient taking the prescribed therapy with both levothyroxine and rosuvastatin at all times.

The control on June 22 this year shows a significant reduction in the levels of cholesterol, LDL cholesterol and triglycerides.

Thyroid hormone status: FT4: 21.4, TSH: 0.55.

Cholesterol: 3.81, LDL: 1.89, HDL: 1.89, Trigl: 1.64, AST: 34, ALT: 23.

The patient is feeling well and has not had any side effects from rosuvastatin.

Therapy for the next 6 months, levothyroxine in the same dose, and the dose of rosuvastatin adjusted to 20 mg, every other day.

In this case, rosuvastatin therapy has been shown to be very effective in lowering total cholesterol, bad cholesterol and triglyceride levels.

Case report

The 41-year-old RS patient is coming for her first check-up in January this year, complaining of pain between her shoulder blades, which has been going on for a long time.

It is treated for high blood pressure and low iron levels, under the supervision of a cardiologist.

The menstrual cycle is orderly, she wants a pregnancy.

Positive family history in terms of CVD, HLP and CVI.

Objectively obese, with signs of hyperinsulinemia, is not of the Cushingoid aspect.

Thyroid hormone status: FT4: 12.9, TSH: 1.33, HBA1C: 6.0%.

Cholesterol: 6.01, HDL: 0.93, LDL: 3.4, Trigl: 3.57, AST: 38, ALT: 80.

In therapy at the first examination introduced levothyroxine 50mcg, every morning, metformin 1000mg, in two daily doses and rosuvastatin in a dose of 20mg, every day.

The first check-up is scheduled for 4 months, with advice for daily therapy and weight correction.

The first control on April 8 this year, the patient feels better, she lost 2 kg in body weight, there is no pain between the shoulder blades.

The menstrual cycle is orderly, without pregnancy for now.

Thyroid hormone status: FT4: 14.3, TSH: 1.50. HBA1C: 6.0%, Glucose: 6.4 mmol / l.

Cholesterol: 4.96, Trigl: 2.14, AST: 38, ALT: 73.

The same therapy was continued with levothyroxine, metformin, the dose of rosuvastatin was reduced to 20 mg, every other day.

Again, dietary correction is advised due to body weight and easier pregnancy.

The next control with the same analysis is scheduled for 2 months.

The patient is coming on June 26 this year, she is feeling well, she has lost 4 kg in body weight, since the first examination, her menstrual cycle is normal, there is still no pregnancy.

Thyroid hormone status: FT4: 13.79, TSH: 0.87. HBA1C: 5.5%, Glucose: 7.4,

Cholesterol: 3.96, Trigl: 1.87.

Exactly the same therapy was continued, with the advice of weight correction.

Case report

The 51-year-old VN patient complains of tingling in her hand. He is being treated for type II diabetes, on therapy with oral antidiabetics (OAB). On March 31, 2021, at follow-up, HBA1C: 8.4%, Cholesterol: 7.22, Trigl: 5.40%. No menstrual cycle back 6 months. So far, she has not had elevated levels of cholesterol and triglycerides in her blood. Recommended therapy in addition to OAB and rosuvastatin in a dose of 20 mg, 1 tablet in the evening.

Check-up on June 1, 2021, feels good, no tingling in the hand.

New laboratory results: HBA1C: 7.5%, Cholesterol: 4.30, HDL: 1.20, LDL: 2.13, TrigL: 2.12.

The same OAB therapy was continued and the dose of rosuvastatin was reduced to 10 mg, every night.

The next control with new laboratory analyzes, HBA1C, daily profile of glycemia, cholesterol, HDL, LDL, triglycerides, AST and ALT is scheduled for 3 months.

Case report

Patient S H, 73, complains of chest tightness, is being treated for diabetes, on therapy intensified by insulin therapy, since March this year. He is also being treated by a cardiologist. At the regular endocrinological control on May 6 this year, laboratory analyzes showed the following values: HBA1C: 9.51%, cholesterol level: 7.5, Triglyceride: 5.0, AST: 26, ALT: 45.

Continued and intensified insulin therapy with insulin dose adjustment, and added rosuvastatin therapy in a dose of 20 mg, 1 tablet in the evening, after dinner.

The next check-up for July 3 this year, there were no more problems in terms of chest tightness and the patient brought new laboratory tests: HBA1C: 6.955%, morning glucose level 7.23, Cholesterol: 3.9, Triglyceids: 2.1, AST: 32, ALT: 48.

The same therapy with insulin and rosuvastatin in a dose of 20 mg was continued, every other evening, and a new control was scheduled for 4 months.

Conclusion:

Rosuvastatin therapy has been shown to be effective and safe in the treatment of hyperlipoproteinemia in endocrinological patients. They showed a particularly excellent effect in patients with increased body weight and diabetes. Importantly, no patients showed any side effects with rosuvastatin. The administered rosuvastatin in a short time led to a significant reduction in the levels of cholesterol and triglycerides in the blood, without affecting the level of transaminases in the blood.

Literature:

1. Harison, 2004, Internal Medicine,
2. National Guide to Good Clinical Practice, Lipid Disorders, 2005.