



# The patient had side effects with statins

## Should she receive other therapy?

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*Although the benefits and general safety of statin drugs have been well established, some patients are experiencing adverse events and it may become necessary to suspend these drugs in these patients.*

**S**tatin drugs are currently being used by millions of adult patients. Although adverse events are not common, they do occur and affected patients constitute a significant proportion of referrals to consultants. This is the story of one such patient.

### Case scenario

Ms JH, aged 65 years, had kept good general health over the years. She was a nonsmoker and did not drink. About five years ago, she was noted to have an elevated serum cholesterol level with several readings averaging about 7 mmol/L. She was consuming a diet with a reduced saturated fat content and eventually was started on statin therapy.

Over the next one to two years she tried a succession of statin drugs, including atorvastatin, rosuvastatin and simvastatin. However, no matter which drug was used she still experienced side effects: myalgia in the legs, abdominal discomfort and malaise.

Treatment was eventually suspended and there was gradual but complete remission of these symptoms. At the time of consultant referral she had not used any lipid drugs for about two years.

Some routine blood tests in June 2014 showed an adverse lipid profile with the following results:

- total cholesterol 8.9 mmol/L (reference range <4.5 mmol/L)
- triglycerides 2.1 mmol/L

(reference range <2.0 mmol/L)

- HDL-cholesterol 2.1 mmol/L (reference range >1.0 mmol/L)
- LDL-cholesterol 5.8 mmol/L (reference range <2.5 mmol/L).

Her levels of electrolytes, creatinine, glucose, liver enzymes and thyroid-stimulating hormone, as well as her blood count, were all within normal limits. Both her parents had died in their 80s of 'old age' without known evidence of premature cardiovascular disease, diabetes or lipid disorders. Nor was there any relevant similar history in her brother or two adult children.

Her GP was concerned about the current lipid profile, in particular it was much more adverse than previously noted and for unexplained reasons. She was then referred to this consultant for advice on whether or not she could or should resume lipid drug therapy.

### Consultant visit and management

Ms JH's physical examination revealed a satisfactory body mass index of 25.1 kg/m<sup>2</sup>, blood pressure of 130/80 mmHg and in sinus rhythm, and no abnormality on cardiovascular or abdominal examination. She had neither corneal arcus nor xanthomata.

A resting ECG was within normal limits and dipstick urinalysis showed no abnormality. Thus, nephrosis was excluded and



### Key points

- **Statin drugs reduce the future risk of cardiovascular disease and are generally safe.**
- **Adverse events are uncommon but do occur and it may be necessary to discontinue treatment.**
- **An assessment of absolute cardiovascular disease risk may assist in future patient management.**

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the previous blood test had excluded any contribution from hypothyroidism.

Several months had passed since the previous blood test was taken and this was updated. Her lipid profile was now more consistent with earlier history with the following results:

- total cholesterol 6.9 mmol/L
- triglycerides 2.2 mmol/L
- HDL-cholesterol 2.0 mmol/L
- LDL-cholesterol 3.9 mmol/L.

Other blood test results were similar to those noted prior to referral. There was no simple explanation for the discrepancy in cholesterol levels, yet she was confirmed to have a persistently elevated HDL-cholesterol reading. With an LDL-cholesterol measurement of 3.9 mmol/L on a careful diet, she was probably a case of familial hypercholesterolaemia in the heterozygous form.

Her absolute risk of cardiovascular disease in the next five years was calculated to be relatively low at about 4%, with 15% being regarded as a threshold of high risk. Her absolute risk appeared this low because of the absence of hypertension, diabetes, cigarette smoking or a family history of premature cardiovascular disease, plus the presence of an elevated HDL-cholesterol level. Further assessment with a coronary calcium score was discussed, but declined by the patient.

Thus, the need for a return to using any lipid drugs in her case was fairly weak and she had experienced serious side effects when using at least three different statin drugs in the past. The patient was unwilling to consider other treatment options such as ezetimibe or fenofibrate, nor were they strongly indicated. It was mutually agreed that she would continue with standard

dietary advice alone and it was requested that she return for a final review by the consultant three months later.

At the final visit her repeat LDL-cholesterol level was little changed at 3.8 mmol/L, so ongoing advice was unchanged and she was discharged back to the care of her GP.

### Concluding comment

Although the benefits and general safety of statin drugs have been well established, there are some patients experiencing adverse events where it is necessary to suspend these drugs. This is more easily accomplished in situations of lower cardiovascular disease risk. In high-risk patients a non-statin approach may still be indicated. **CT**

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