

Chronic urticaria to atorvastatin

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• CHRONIC URTICARIA is very common skin disease leading to a considerable impact on quality of life. In up to 50% of cases functional autoantibodies directed against the alpha-chain of the high affinity IgE receptor or IgE are present, and in only a low percentage of cases can allergy or hypersensitivity to food or drugs be found (1). Atorvastatin (Sortis®) is a drug widely used for hypercholesterolemia. It inhibits hydroxymethylglutaryl coenzymeA-reductase (HMG CoA-reductase), the synthesis of cholesterol, and increases the number and activity of hepatic LDL-receptors (2).

The 59-year-old patient had been taking the drug for several months. After eight weeks he suffered from chronic urticaria without periodicity; wheals could not be induced physically. No other symptoms were reported and there were neither infectious diseases nor psychological problems before or during this episode. Personal history was negative for atopy or hypersensitivity reactions to food or drugs. He had never experienced urticaria before. However, he had suffered from coronary heart disease, hypertension, and diabetes mellitus for years. Besides 10 mg of atorvastatin/die (p.o.), he also took Belok Zok® (metoprolol), Padma 28® (a Tibetan herbal mixture) and Marcoumar® (phenprocoumon) for years.

The first case, which also had a positive scratch test.

Physical examination showed no cardiopulmonary or gastrointestinal abnormalities or signs of infectious disease; erythematous wheals up to 10 cm in diameter were apparent on all sites of the body, without petechia, lasting approximately 24 h. The dermatographism was normal (*ruber non elevatus*).

Routine blood tests (differential blood count, creatinine, aspartate aminotransferase (GOT), CRP) were normal; ANA, c- and p-ANCA, Rf and immune-complexes were in the normal range. Glucose was slightly elevated (6.7 mmol/l). The ASL titre was normal (167 IU/ml). Insulin autoantibodies were normal (0.8 U/l) and pancreas autoantibodies were negative.

Total IgE was 43.2 kU/l and Sx1-atopy multiscreen was negative (<0.35 kU/l) (CAP-FEIA, Pharmacia-Upjohn, Uppsala, Sweden).

Scratch testing was conducted with all the drugs and positive and negative controls, on the forearms where no wheals had appeared in the previous 24 h. Histamine was positive (++, wheal = 5 mm flare, <8 mm), the negative control without wheal formation. Atorvastatin showed a strong positive response (++) after 30 min; the other drugs tested negative. Two healthy volunteers used as controls showed negative scratch tests for atorvastatin.

After cessation of medication with atorvastatin, the urticaria subsided over the 10 days.

Atorvastatin has been reported to induce positive dermatographism (3), toxic epidermal necrolysis (4), linear bullous dermatosis (5) and lymphocytic infiltration of the dermis (6), but there are no reports of immediate-type reactions or allergy to date. In our case, the dermatographism was not elevated.

The patient's history, strong sensitization to atorvastatin in skin tests, and subsiding symptoms after drug withdrawal, indicate that this chronic urticaria was elicited by atorvastatin or one of its metabolites.

To our knowledge, this is the first report of chronic urticaria induced by atorvastatin. It reminds us that medications taken over a variable long period can theoretically lead to sensitization, and also to chronic urticaria. All such drugs should be included in allergy testing.

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References

1. GREAVES M. Chronic urticaria. *J Allergy Clin Immunol* 2000;**105**: 664–672.
2. LEA AP, MCTAVISH D. Atorvastatin. A review of its pharmacology and therapeutic potential in the management of hyperlipidaemias. *Drugs* 1997;**53**:828–847.
3. ADOCK BB, HORNSBY LB, JENKINS K. Dermatographism: an adverse effect of atorvastatin. *J Am Board Fam Pract* 2001;**14**:148–151.
4. PFEIFFER CM, KAZENOFF S, ROTHBERG HD. Toxic epidermal necrolysis from atorvastatin. *JAMA* 1998;**279**: 1613–1614.
5. KONIG C, EICKERT A, SCHARFETTER-KOCHANKE K, KRIEG T, HUNZELMANN N. Linear bullous dermatosis induced by atorvastatin. *J Am Acad Dermatol* 2001;**44**:689–692.
6. FAIVRE M, DOLFUS A, LIPSKER D. Lymphocyte infiltration in superficial dermis. *Ann Dermatol Venerol* 2001;**128**:67–68.