

Desensitization to clopidogrel: a growing need

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Clopidogrel is an oral thienopyridine that inhibits platelet aggregation via adenosine diphosphate-dependent mechanisms. It is widely used for the treatment and secondary prevention of a variety of cardiovascular diseases, and is a good alternative for patients who are intolerant to aspirin (ASA). Patients who undergo coronary stenting precise a combined therapy of ASA plus a thienopyridine. In bare-metal stent placement, this recommendation is for a 3 to 4-week-period (1) and then ASA for life. Clopidogrel is the preferred thienopyridine in all cases because of its safety profile and better tolerance than ticlopidine, although hypersensitivity reactions can appear. As other options of treatment are limited, desensitization is rising as a safe alternative in those patients (2–6).

We present a case of a patient with a hypersensitivity reaction to clopidogrel who was successfully desensitized to the drug with our 3.5-h protocol.

A nonatopic, 83-year-old man and ex-smoker with a medical history of hyperlipidemia suffered myocardial infarction. After a coronary catheterization, a 3 × 20 mm Chrono bare-metal stent (Sorin Group, Milan, Italy) was implanted at the obtuse marginal branch and treatment with clopidogrel

75 mg/day plus aspirin 100 mg/day was initiated. One week after starting the treatment, the patient developed a generalized pruritic maculopapular eruption. Prednisone 30 mg/day and dexchlorfeniramine 2 mg/8 h were started, but there was no improvement after 3 days, so the patient decided to stop clopidogrel on his own, and 2 days later the rash was resolved. A few days later, the patient was readmitted for anginal symptoms and the cardiologists contacted the allergy department. As dual antiplatelet therapy was needed, and therapeutic alternatives to clopidogrel are limited, we planned desensitization to the drug with our own protocol, as shown in Table 1. Doses were administered every 30 min under medical supervision, for a total protocol length of 3 h and 30 min, and the patient was kept under observation during the following 2 h after the last dose, with no reaction during the whole procedure. Afterwards, the patient continued treatment with clopidogrel the entire month, with no further reactions.

It is important to emphasize that the described lesions are very characteristic, as well as the timing of the reaction, although cutaneous tests were not carried out to assess an IgE-mediated reaction, due to the urgency of medication. Some

protocols for desensitization to clopidogrel have been published, demonstrating its safety and effectiveness, although most of them are long, which might make it hard to apply everywhere, especially in outpatient clinics, where time can become a limitation.

Based on our limited experience, we think that we have a fast and safe protocol, which can be useful when desensitization to clopidogrel is needed. As percutaneous coronary intervention is a common procedure nowadays and the use of dual antiplatelet therapy is rising, the risk of hypersensitivity to clopidogrel increases too; thus we need to provide tools to face this problem as fast and safe as possible.

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Table 1. Desensitization protocol to clopidogrel

Dose (mg)	Concentration	Oral volume (ml)
0.05	0.5	0.10
0.15		0.30
0.5		1
1.5		0.30
5	5 mg/ml	1
15		3
45		9
75		1 tablet

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