

Clopidogrel allergy successfully treated with corticosteroids without clopidogrel withdrawal

Alergia na kłopidogrel skutecznie leczona steroidami bez przerwania terapii kłopidogrelem

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Early discontinuation of clopidogrel in patients after percutaneous coronary intervention (PCI) with drug eluting stent (DES) implantation in stable coronary artery diseases (CAD) is linked to a higher risk of stent thrombosis. Discontinuation is often caused by unplanned surgical procedures or patient non-compliance and occasionally (1–2%) by drug-induced allergic reaction. The easiest way to deal with allergy is clopidogrel withdrawal and a switch to ticagrelor, prasugrel, or ticlopidine. However, ticagrelor and prasugrel are expensive, treatment with prasugrel and ticlopidine may be linked to allergenic cross-reactivity, especially in patients with dermatologic manifestation (40%), and treatment with ticlopidine may be linked to haematological disorders. Another, not widely known option of treatment of clopidogrel-induced allergy is therapy with corticosteroids. A 64-year-old male with a history of stable CAD two months after PCI with implantation of two sirolimus eluting stents to the left anterior descending artery was admitted to the outpatient cardiology clinic complaining of a rash localised on the back, hands, and legs. The rash occurred about seven days after PCI. The patient was treated with clopidogrel loading dose (300 mg) before PCI, and then with 75 mg daily. The medical history of the patient also included hypertension, anterior myocardial infarction of undisclosed time of incidence, moderate aortic stenosis, hyperlipidaemia, and impaired fasting glucose. The patient was treated with acetylsalicylic acid, clopidogrel (75 mg), proton pump inhibitor, ramipril, amlodipine, nebivolol, rosuvastatin, metformin, and potassium supplementation. Physical examination revealed a pruritic, exanthematous rash on the upper back, forearms, and lower legs (Fig. 1A, B). Laboratory results showed normal red and white blood count with normal smear. The consulting dermatologist suggested skin manifestation drug allergy. Clopidogrel was the only drug that was newly added during the previous six months and was strongly suspected to be the cause of the skin hypersensitivity reaction. Platelet aggregation measured with a point-of-care VerifyNow system (Accumetrics) revealed sufficient platelet inhibition on clopidogrel treatment: 121 platelet reaction units, and also good response to aspirin — 383 aspirin reaction units. The patient could not afford to switch from clopidogrel to prasugrel or ticagrelor due to economic reasons, and as such the patient was qualified to corticosteroid therapy and treated with a three-week course of prednisone, starting with 30 mg twice daily for five days followed by a 5-mg decrease every three days and antihistamine — cetirizine 10 mg daily. The patient completed steroid treatment without any major complaints, and a repeated examination after four weeks revealed resolution of the rash (Fig. 2A, B). Treatment with clopidogrel was continued for 12 months after PCI, the skin rash did not reoccur during the treatment, and the patient did not suffer any major cardiac event during follow-up. The presented strategy of corticosteroid treatment without clopidogrel withdrawal might be a safe and effective option for patients suffering from allergic reaction due to clopidogrel.



Figure 1. A, B. Physical examination — a pruritic, exanthematous rash on the upper back and forearms



Figure 2. A, B. Resolution of rash after completed steroid treatment

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Conflict of interest: Andrzej Budaj: AstraZeneca, Sanofi Aventis, Bristol Myers Squibb/Pfizer, Boehringer Ingelheim, Novartis, GlaxoSmithKline, Eisai, Aspen.

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