

S. Fateh-Moghadam · U. Plöckinger · N. Cabeza · P. Htun · T. Reuter · S. Ersel · M. Gawaz · R. Dietz
W. Bocksch

Prevalence of aspirin resistance in patients with type 2 diabetes

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Abstract Aspirin resistance has been recognised to occur in patients with cardiovascular disease and is associated with poor clinical prognosis. The purpose of the present study was to evaluate the prevalence of aspirin resistance in 172 patients with diabetes mellitus type 2 (DM-2). Platelet function of 172 consecutive patients with type 2 diabetes on chronic aspirin therapy was evaluated. The effect of aspirin was assessed using the platelet function

analyser (PFA-100) system, reporting platelet-dependent thrombus formation as the time required to close a small aperture in a biologically active membrane. Resistance to aspirin was defined as a normal collagen/epinephrine-induced closure time (82–165 s). Aspirin responders were defined when closure time was ≥ 300 s. Thirty-seven (21.5%) of the type 2 diabetic patients were found to be resistant to chronic aspirin therapy, 29 (16.9%) were semi-responders and 106 (61.6%) were responders. Univariate analysis revealed that aspirin non-responders were significantly younger ($p < 0.05$) compared to aspirin responders. A significant number of type 2 diabetic patients are resistant to aspirin therapy. Aspirin resistance can be evaluated by point-of-care testing and should be recognised in diabetic patients that are treated for primary or secondary prevention.

Key words Platelet function · Diabetes mellitus type 2 · Aspirin resistance