

Clopidogrel resistance is a condition in which the drug clopidogrel is less effective than normal in people who are treated with it.

Kim et al. from the **Asan Medical Center** retrospectively analyzed the **data** of 427 **patients** with **unruptured intracranial aneurysms** who underwent **endovascular treatment** between July 2011 and June 2014. When **clopidogrel** resistance was confirmed via **platelet reactivity unit** (PRU) assay after **dual antiplatelet therapy** (**aspirin** plus **clopidogrel**) administration for 5 days, triple **antiplatelet** therapy with **cilostazol** was administered (Group I, 274 patients). The other group was placed on standard **dual antiplatelet therapy** (Group II, 153 patients). All patients underwent magnetic resonance **diffusion-weighted imaging** within 2 days after **endovascular coiling**.

No significant associations with the occurrence of a **thromboembolic event** and microembolic event were found between the groups. The occurrence of thromboembolic and microembolic events showed no statistical difference between groups I and II ($p = 0.725$ for thromboembolic events and $p = 0.109$ for microembolic events). Also, the PRU value and the occurrence of microembolic events, using a PRU cutoff value of 240, showed no statistical difference ($p = 0.114$ in group I and 0.064 in group II). There was significant increase in microembolic events after the use of a stent-assisted endovascular procedure. As the PRU value increased, there was a trend toward an increase in the mean number of microembolic lesions without statistical significance.

Even though there is a presumed anti-thromboembolic effect for **clopidogrel resistance** in other literature, the clinical efficacy of adjustment of additional **cilostazol** for endovascular **coiling** of **unruptured aneurysms** may be limited due to the unspecified cutoff value of the PRU assay for evaluating the resistance ¹⁾.

¹⁾

Kim GJ, Heo Y, Moon EJ, Park W, Ahn JS, Lee DH, Park JC. **Thromboembolic events** during **endovascular coiling** for **unruptured intracranial aneurysms**: Clinical significance of **platelet reactivity unit** and adjunctive **cilostazol**. Clin Neurol Neurosurg. 2022 Jan 15;213:107133. doi: 10.1016/j.clineuro.2022.107133. Epub ahead of print. PMID: 35065532.

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