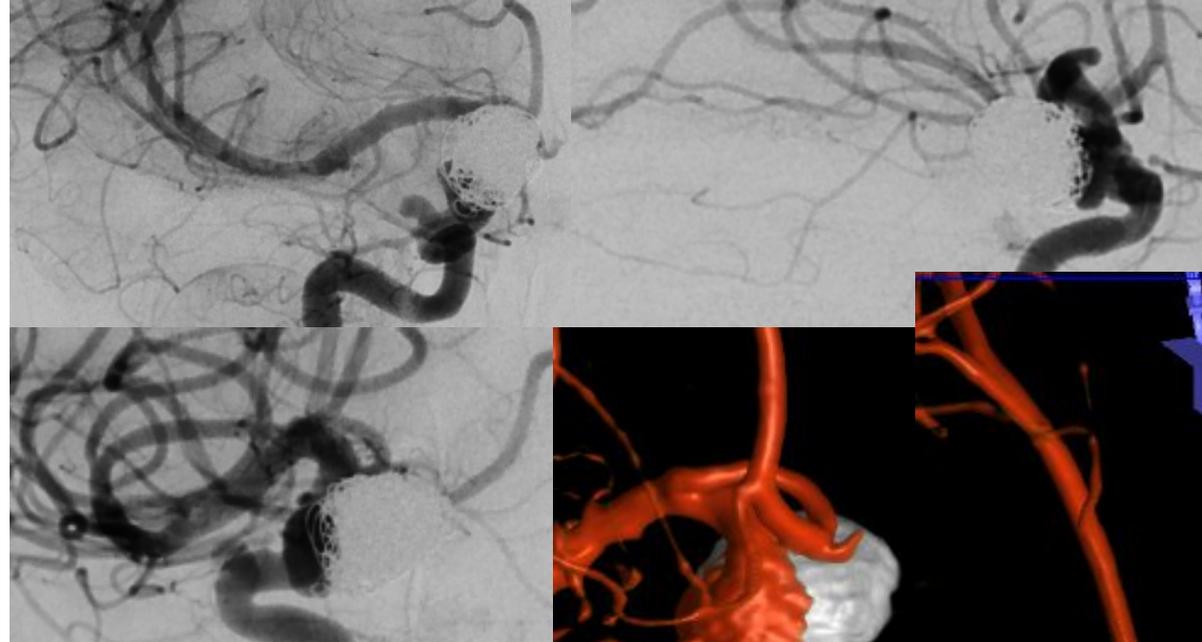


# Aneurisma recanalizado de arteria comunicante posterior. Tratamiento con Flow Diverter.

Hsa- Tratamiento con coils .

Recanalización-compactación de packing de coils.

Tratamiento definitivo del aneurisma con stent flow diverter Surpass 4mm x 20 mm.



## 0-019 FLOW DIVERSION VERSUS COILING IN POSTERIOR COMMUNICATING ANEURYSMS: EFFICACY, SAFETY AND THE FATE OF PCOM

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**Background** Posterior communicating artery aneurysms (PCoMA) represent second most common source of aneurysmal SAH. Endosaccular coiling (EC) is widely accepted treatment, however, associated with high recanalization rates. Flow diversion (FD) seems to be promising alternative but there is few data regarding the comparison of two methods in clinical setting.

**Aim** To compare clinical and angiographic outcomes of FD vs EC in PCoMA suitable for both treatment methods.

**Methods** Among 1439 cerebral aneurysms treated in single institution between January 2012 and July 2017 there were 78 aneurysms located in PCoM and treated either with FD (n=32) or EC (n=46). We performed retrospective analysis and comparison of their clinical and angiographic data. Follow-up DSA was available for 72 lesions (31 FD and 41 EC).

**Results** The groups were similar in terms of patient age (p=0.58), sex (p=0.76), previous rupture (p=0.63), aneurysm dome size (p=0.72), PCoM diameter (p=0.72) and timing of angiographic follow-up (median 10 months in FD and 8 months in EC group, p=0.39). In the FD group there were

wider necks (p=0.00086), higher proportions of previously treated lesions (p=0.02) and those causing oculomotor deficit (p=0.024). Total aneurysm occlusion rate (Raymond-Roy class I) was significantly higher in FD group (83%, n=26/31 vs 61%, n=35/41 in EC group, p=0.04). However, there was no significant difference in terms of combined total/near-total (RR class I-II) occlusion rate (90.3%, n=29/31 in FD group vs 85.3%, n=35/41 in EC group, p=0.45) and retreatment rate (12.9% in FD and 19.5% in EC group, p=0.74). The rate of PCoM patency at follow-up DSA was higher in EC group (95.5% vs 65.5% in FD, p=0.00001), however, there were no clinical sequelae of PCoM occlusion in either group. There was no procedure- or aneurysm-related mortality, while permanent neurological morbidity was similarly low (3.2% in FD and 2.4% in EC group). The rate of oculomotor deficit improvement was 63% (n=7/11) in FD group and 40% (n=2/5) in EC group, but there was not enough power to meet statistical significance (p=0.59).

**Conclusion** Flow diversion is safe and effective alternative to endosaccular coiling in PCoM aneurysms. It is associated with higher total aneurysm occlusion rates at the price of delayed PCoM obliteration, which, however, has no clinical importance. Flow diversion may be beneficial versus coiling in patients with oculomotor palsy, but larger samples are required to verify those benefits.

**Disclosures** A. Gorbatykh: None. D. Kisilitsin: None. R. Kiselev: None. A. Alshevskaya: None. K. Orlov: None.

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