Pipeline embolization of posterior communicating artery aneurysm

Pipeline Embolization Device (PED) treatment was largely ineffective at treating posterior communicating artery aneurysms associated with a fetal origin PCA, and should only be considered when conventional treatment options, including microsurgical clipping, are not feasible [1)].

A PComA aneurysm with persistent fetal-type circulation appears to be particularly refractory to flow diverter treatment, especially when the aneurysm incorporates a significant portion of the PComA. Our experience suggested that flow diverting stents alone may not be the ideal treatment for this subgroup of aneurysms, and alternative modalities should be considered. Female patients were found to have a significantly higher rate of treatment success [2)].

1)
Wallace AN, Kayan Y, Austin MJ, Delgado Almandoz JE, Kamran M, Cross DT 3rd, Moran CJ, Osbun JW, Kansagra AP. Pipeline embolization of posterior communicating artery aneurysms associated with a fetal origin posterior cerebral artery. Clin Neurol Neurosurg. 2017 Jun 27;160:83-87. doi: 10.1016/j.clineuro.2017.06.014. [Epub ahead of print] PubMed PMID: 28692909.
2)
Tsang AC, Fung AM, Tsang FC, Leung GK, Lee R, Lui WM. Failure of Flow Diverter Treatment of Intracranial Aneurysms Related to the Fetal-type Posterior Communicating Artery. Neurointervention. 2015 Sep;10(2):60-6. doi: 10.5469/neurointervention.2015.10.2.60. Epub 2015 Sep 2. PubMed PMID: 26389008; PubMed Central PMCID: PMC4571555.