

1.1. Aneurysms

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TREATMENT OF VERTEBRAL ARTERY DISSECTING ANEURYSMS WITH FLOW DIVERSION: A COMPARATIVE SYSTEMATIC REVIEW AND META-ANALYSIS

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Introduction Intracranial vertebral artery dissecting aneurysms (VADAs) are rare and complex. Treatment strategies remain debated due to the involvement of branching arteries.

Aim of Study This study was conducted to assess the safety and efficacy of flow diversion (FD) compared to alternative methods for VADAs through systematic review and meta-analysis.

Methods In December 2023, we conducted a systematic search in Pubmed, Scopus, and Web of Science following the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines. Our objective was to compare occlusion rates, favorable mRS (0-2), and complication rates. Additionally, we directly compared the FD group with other interventions. We employed a weighted random-effect model for meta-analysis.

Results 23 articles and 422 patients were included. The immediate occlusion rate was 5.8% for FD, which is significantly lower than stenting methods (OR= 0.03, *P* value< 0.0001). The final complete occlusion rate was 79.87% similar to the stenting group (OR= 1.01, *P* value= 0.98) and lower than deconstructive treatment (OR= 0.16, *P* value= 0.005). Favorable mRS was recorded in 95.31% which was comparable to the stenting group (OR= 1.57, *P* value= 0.47), but significantly higher compared to the deconstructive group (OR= 4.27, *P* value= 0.002). Complication rates were low (9.7%) without a significant difference compared to the other two groups (*P* value= 0.19, *P* value= 0.68). Adverse events were reported in 17.3% when the posterior inferior cerebellar artery was covered by FDs.

Conclusion This study highlights FDs as a potentially effective initial treatment choice for VADAs, especially for unruptured cases.

Disclosure of Interest no.

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ECLIPS IN THE ENDOVASCULAR TREATMENT OF BIFURCATION ANEURYSMS – A SINGLE CENTER EXPERIENCE

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Introduction It is challenging to achieve a durable occlusion in endovascular treatment of aneurysms at the basilar and carotid tip.

eCLIPS is a non-tubular device designed to retain coils and divert flow away from bifurcation aneurysms.

Aim of Study To evaluate the results of eCLIPS treated bifurcation aneurysms.

Methods Between 2015 and 2022 we identified all patients treated with eCLIPS.

Results 39 patients, average age 60 years. 22 patients had planned treatment with the eCLIPS device. Aneurysm characteristics: 30 (77%) basilar tip (BT), 6 (15%) carotid terminus (CT), 3 (8%) anterior communicating (ACA);10 (26%) recurrent after prior treatment; 7 (18%) previously ruptured. eCLIPs implant was successful in 34/39 (87%) of cases. Failure to implant was due to malalignment in 4, microguidewire trauma in 1.

No patient had regression of mRROC score on follow-up imaging.

Abstract P096 Table 1 Efficacy modified Raymond Roy Occlusion Classification (mRROC)

mRROC	eBRS (n = 19) Median followup 37 mo (range 9 – 69 mo)	eB (n = 13) Median followup 10 mo (range 8 – 32 mo)
1	16 (84%)	13 (100%)
2	2 (11%)	0
3A	1 (5%)	0
3B	0	0

Abstract P095 Table 1 Meta-analysis of safety and efficacy of FD compared with other treatment modalities

	FD	COMPARED WITH STENTING GROUP	COMPARED WITH THE DECONSTRUCTIVE GROUP
Immediate Complete Occlusion	5.8% (95% CI: 3.37–10.07) I ² : 0.0%	OR: 0.03 (95%CI: 0.01-0.08) P-value: <0.0001, I ² : 0.0%	-
Final Complete Occlusion	79.87% (95% CI: 71.63–86.18) I ² : 49.0%	OR: 1.01 (95% CI: 0.62–1.63) P-value: 0.98, I ² : 0.0%	OR: 0.16 (95% CI: 0.04–0.57) P-value: 0.005, I ² : 0.0%
Favorable mRS	95.31% (95% CI: 85.39–98.60) I ² : 70.1%	OR: 1.57 (95% CI: 0.46–5.38) P-value: 0.47, I ² : 0.0%	OR: 4.27 (95% CI: 1.67–10.91) P-value: 0.002, I ² : 0.0%
Complication Rate	9.7% (95% CI: 5.54–16.46) I ² : 57.9%	OR: 0.61 (95% CI: 0.3–1.27) P-value: 0.19, I ² : 0.0%	OR: 0.73 (95% CI: 0.16–3.29) P-value: 0.68, I ² : 0.0%

Safety: Two patients (5.1%) had procedural safety events: 1 thrombus with minor thalamic infarct, mRS 1 at discharge and 1 microguidewire trauma leading to SAH. One patient (5%) required repeat coiling. No subsequent safety events occurred through follow-up.

Conclusion eCLIPS has an effective flowdiversion effect, and it enables durable coilsupport.

Aneurysm occlusion grade remained unchanged or better at all follow-up timepoints.

eCLIPS has a satisfactory safety profile.

Disclosure of Interest no.

1.2. Brain AVM/AVF, spinal vascular malformations

P097 PRELIMINARY EXPERIENCE WITH IHTOBTURA®: A NOVEL NON-ADHESIVE LIQUID EMBOLIC AGENT, WITH POST EMBOLIZATION LOSS OF RADIOCAPACITY, FOR THE ENDOVASCULAR TREATMENT OF BRAIN ARTERIOVENOUS MALFORMATIONS. CLARIDAD STUDY

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Introduction ihtOBTURA® (IBERHOSPITEX, Llica de Ball, Spain) is a revolutionary non-adhesive liquid embolic agent, composed by EVOH copolymer and an iodinated compound, dissolved in DMSO

Aim of Study To report a Preliminary Experience with ihtOBTURA®: A Novel Non-Adhesive Liquid Embolic Agent, with post embolization loss of radiopacity, for the Endovascular Treatment of Brain Arteriovenous Malformations

Methods We performed a prospective longitudinal single center study, from November 10, 2021, to September 10, 2022. 42 consecutive patients with brain AVMs, were treated by

endovascular way. A total of 102 endovascular procedures were performed with ihtOBTURA®. There were 23 males and 19 females with a mean age of 37.38 years. The most common clinical presentation was intracranial hemorrhage in 35 (83.33%) patients. According to the Spetzler-Martin scale, 25 (59,52%) AVMs were grades IV; 13 (30,95%) AVMs, grade III; and 4 (9,52) AVMs, grades II

Results Complete occlusion was achieved in 26/28 patients (93%) during the study interval, and in 61.90% (26/42) in the entire patient cohort. The 14 remaining patients are scheduled for further EVT. Stability of angiographic occlusion was confirmed in all 26 patients by a control angiogram at 6 months. Mean volume reduction was 80,79% per patients. whereas an average of 7.2 mL of ihtOBTURA® was used per patient. Disabling Permanent Neurological Deficits included 1 case of postinterventional hemorrhage and there were 1 procedure-related death.

Conclusion ihtOBTURA® is a safe and effective new non-adhesive liquid embolic agent, with innovative properties that can improve results on AVMs treatment.

Disclosure of Interest no.

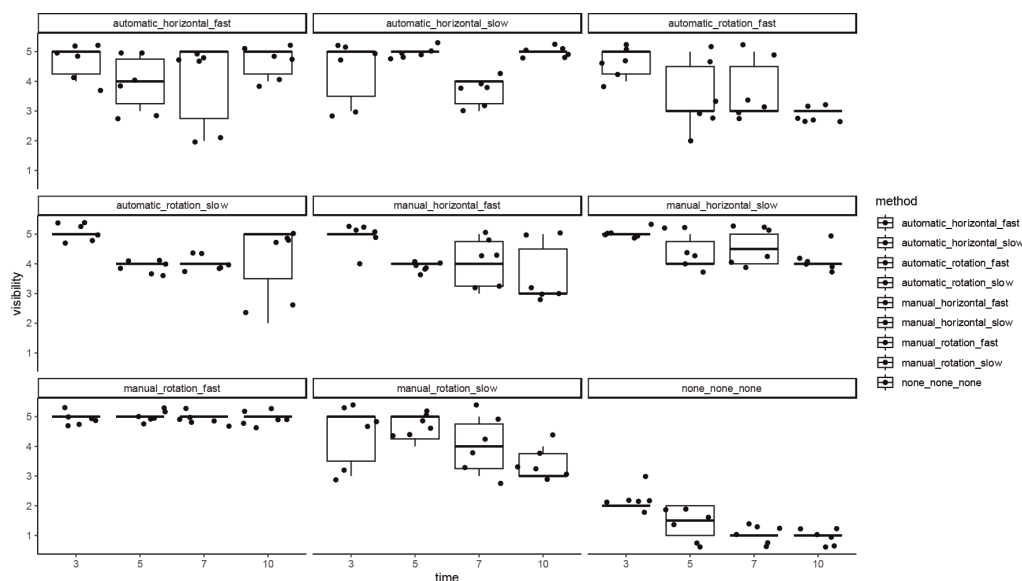
1.3 Miscellaneous

P098 PRESERVATION OF RADIOCAPACITY IN ETHYLENE-VINYL ALCOHOL LIQUID EMBOLIZATION AGENTS THROUGH MANUAL AGITATION: A COMPREHENSIVE MULTIPARAMETRIC IN-VITRO STUDY

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Introduction The formation of a solid plug using Ethylene-Vinyl Alcohol liquid embolization agents (EVOH LEAs) is a



Abstract P098 Figure 1 Boxplot displaying the visibility scale (ordinate) identified blind by 2 EVOH LEA neuroradiologists within 1mL syringes with variable waiting times of 3 minutes, 5 minutes, 7 minutes and 10 minutes (abscissa) depending on the type of shaking method used (either manual or automatic, and either rotational or horizontal)