fistulas without additional embolization can be enough to reduce a fistula significantly.

**P44 ENDOVASCULAR TREATMENT OF BRAIN ARTERIOVENOUS MALFORMATIONS USING PRECIPITATING HYDROPHOBIC INJECTABLE LIQUID (PHIL)**

1-3A. Orlowski*, 1N. Strelnikov, 1-3A. Beregov, 1-3A. Somova. 1Federal Center of Brain Research and Neurotechnologies, Federal Medical Biological Agency of Russia, Moscow, Russian Federation; 2E.N. Meshalkin National Medical Research Center, Ministry of Healthcare of the Russian Federation, Novosibirsk, Russian Federation; 3Russian Endovascular Neuro Society (RENS), Moscow, Russian Federation

10.1136/neurintsurg-2022-ESMINT.65

**Introduction** Application of liquid embolic agents (LEAs) is a method of choice for endovascular treatment of cerebral arteriovenous malformations (AVMs). Nonadhesive agents (Onyx®-Medtronic, USA; Squid®Balt, France) are preferred. Thanks to the precipitating hydrophobic injectable liquid (Phil®Microvention, USA) and its several advantages has been popular endovascular solution.

**Materials and methods** We have treated 787 patients with cerebral AVMs. 41 (5.2%) of patients were treated using only the PHIL agent, in 29 (70.7%) the treatment was finalized and 12 (29.3%) have further treatment. The results of 29 patients are considered in this paper.

**Results** Radical occlusion was achieved in 17 (58.6%) patients. A one-stage procedure was performed in 14 (48.3%) patients, a two-stage in 3 (10.3%) of them. Subtotal thrombosing was achieved in 7 (24.1%) patients and later were surgically removed. 5 (17.2%) patients underwent radiosurgical treatment after subtotal occlusion.

A periproductive hemorrhage was registered in 1 patient. Sufficient ischemic complications were observed in 1 patient.

The clinical outcomes corresponded to mRS 0–1 (96.6%). A rough neurological deficit in the postoperative period was noted in 1 patient (3.45%). In the series were no cases of mortality.

**Conclusion** Using PHIL as the only LEA during endovascular treatment of AVMs enables one to obtain good angiographic and clinical results. Application of this agent provides high primary radicality and reduces number of endovascular stages to achieve expected occlusion, which significantly decreases complication risks and radiation exposure. Considering there are no big observation series and multicenter studies for this agent, it requires further research.

**REFERENCES**


**Do you have any conflict of interest to declare?: No**

---

**P45 BOW HUNTER’S SYNDROME DUE TO KIMMERLE ANOMALY: A RARE CAUSE OF TRANSIENT VERTEBROBASILAR INSUFFICIENCY DIAGNOSED WITH PROVOCATIVE DSA**

A Subir*, F Ghafoor, M Rafeeque. MES Medical College, Neurology, Malappuram, India

10.1136/neurintsurg-2022-ESMINT.66

**Background** Rotational occlusion of the vertebral artery known as Bow hunter’s syndrome (BHS) is a rare cause of transient vertebrobasilar insufficiency symptoms. The underlying pathology is dynamic stenosis or compression of the VA by abnormal bony structures with neck rotation or extension in many cases, such as osteophyte, disc herniation, cervical spondylosis, tendinous bands or tumours. Complete or incomplete ossification of the posterior atlanto-occipital membrane forming a bony ridge between the superoposterior lateral mass of the atlas and its posterior arch is called the Kimmerle anomaly. To our knowledge, this is the first reported case of BHS caused by the Kimmerle anomaly proved with provocative DSA and CT scan for a patient with long-standing transient vertebrobasilar insufficiency on vestibular sedatives.

**Objective** To report a rare case of a fifty-one-year-old driver who presented with transient giddiness only on reversing his car with rightward head rotation diagnosed with provocative digital subtraction angiography (DSA).

**Materials and methods** Clinical history and unique advanced imaging findings are reported.

**Results** Provocative DSA revealed dynamic stenosis of the left vertebral artery at C1 vertebral level. CT angiogram revealed ponticus posticus or Kimmerle anomaly occurring due to calcification of the posterior atlanto-occipital (PAO) membrane and treatments with surgical correction were advised. A high index of clinical suspicion helps in prompt diagnosis of BHS in patients with transient vertebrobasilar insufficiency.

**Conclusion** This case highlights the importance of provocative DSA in making the definitive diagnosis of BHS and also reports its causal association with calcified PAO membrane or Kimmerle anomaly.

**REFERENCES**


Do you have any conflict of interest to declare?: No

---

**P46 HOW MUCH OF THE IMPROVEMENT IN FUNCTIONAL OUTCOME AFTER SUCCESSFUL RECANALIZATION IS EXPLAINED BY FOLLOW-UP INFARCT VOLUME REDUCTION?**

1H. Kniep*, I. Meyer, IM, Bechtstein, G Brock, F Austein, C Brekenfeld, F Flottmann, M Deb-Chatterji, G Thomalla, U Hanning, JF Eichel, S Gellissen. University Medical Center Hamburg Eppendorf, Department of Diagnostic and Interventional Neuroradiology, Hamburg, Germany; 2University Medical Center Hamburg Eppendorf, Department of Neurology, Hamburg, Germany

10.1136/neurintsurg-2022-ESMINT.67