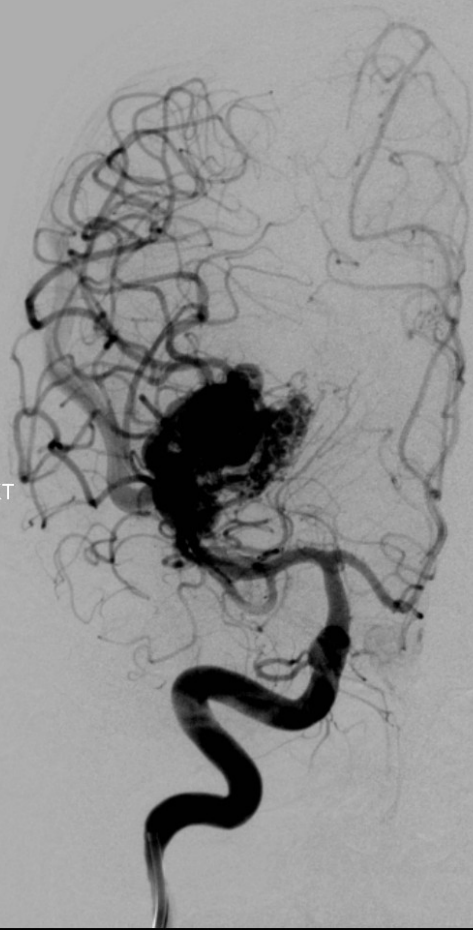


Endovascular Embolisation of Intracranial Arteriovenous Malformations with Liquid Embolisation System Onyx: a Single Centre Experience

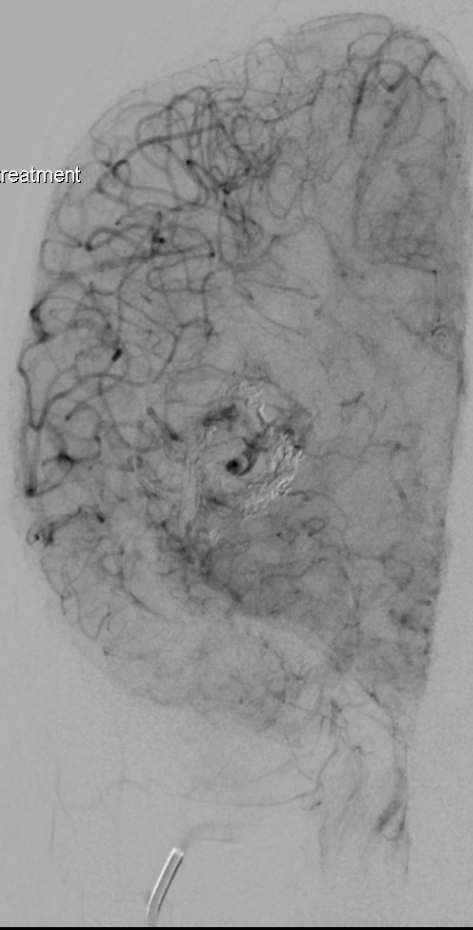
Kupcs K., Veiss A., Kidikas H., Savlovskis J.
Paul Stradins University Hospital
Department of Interventional Radiology and
Neuroradiology
Riga, Latvia

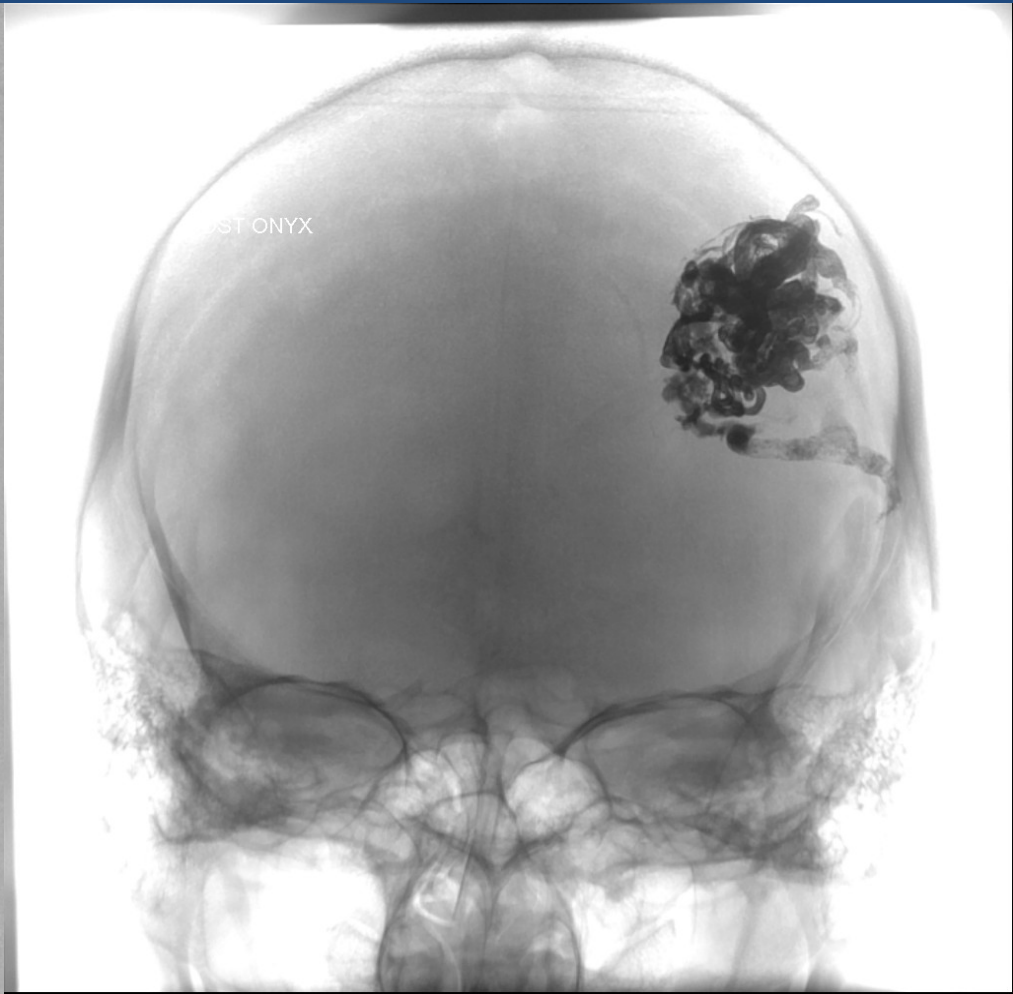
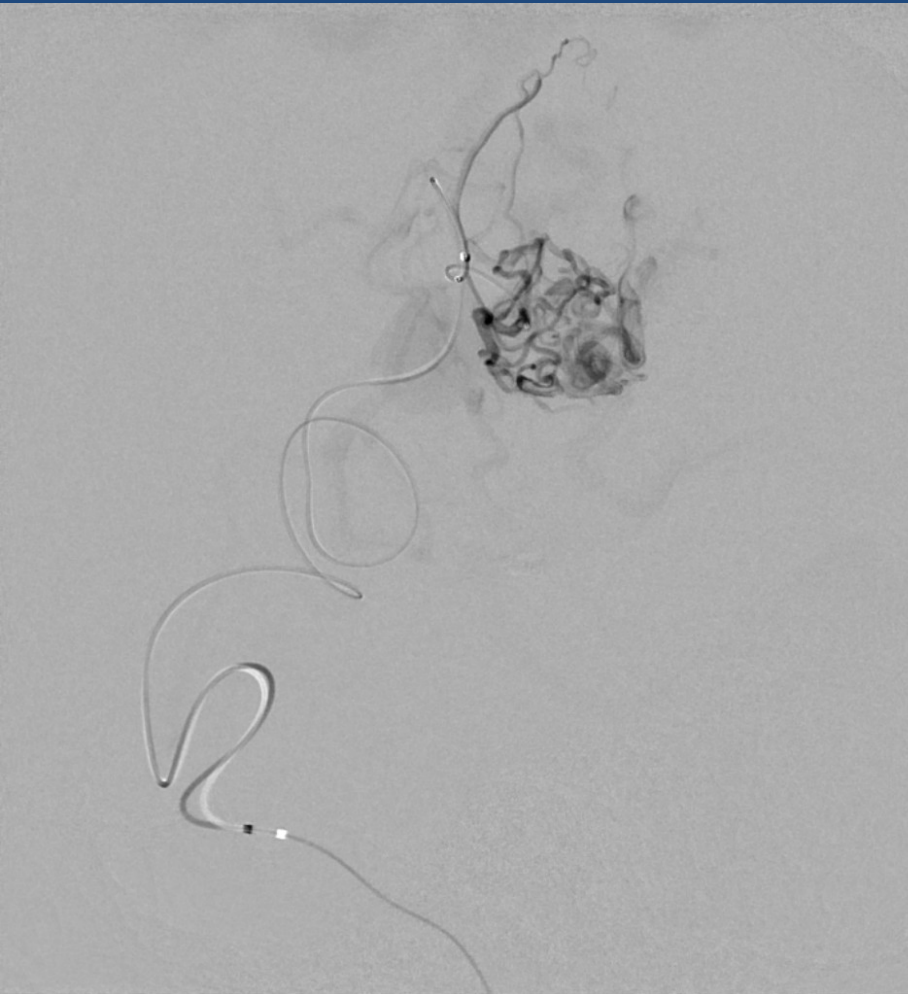
Baltic Congress of Radiology, October 8-9, 2011, Riga, Latvia

ACI DXT



post treatment





- Objective: to report the initial experience by using a new liquid embolic agent (Onyx) for embolization of intracranial arteriovenous malformations (AVMs)
- Retrospective single centre study
- Clinical and image records
- March 2005 through March 2010

Population

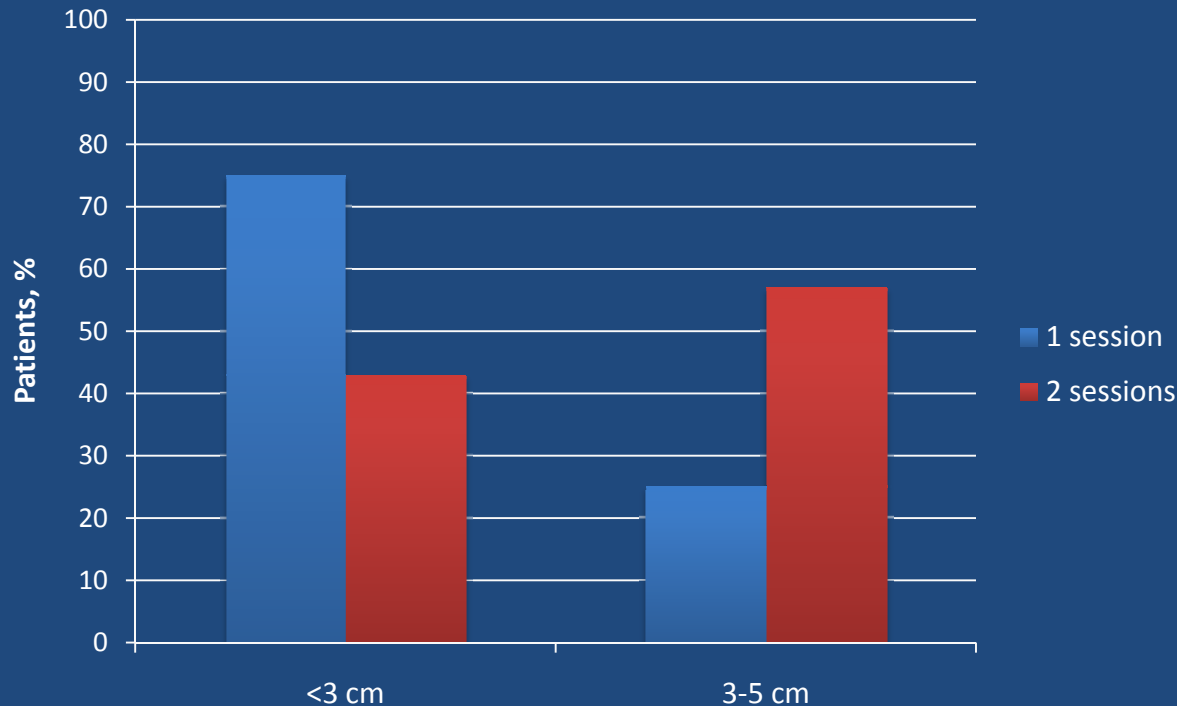
- Population (n=23)
 - Mean age: 30.5y [11-60]
 - Gender: Female 9 Male 14
- Clinical presentation
 - symptomatic 96%
 - asymptomatic 4%

AVM characteristics

- *Martin-Spetzler* scale:
 - 17.39% I
 - 34.78% II
 - 34.78% III
 - 13.05% IV
- Localization:
 - 91% supratentorial
 - 9% infratentorial
- Average nidus diameter 2.82cm (1.2-5cm)
- AVM with aneurysm (n=4)

Treatment information

- Embolisation applied in 23 patients who underwent a total of 30 sessions.



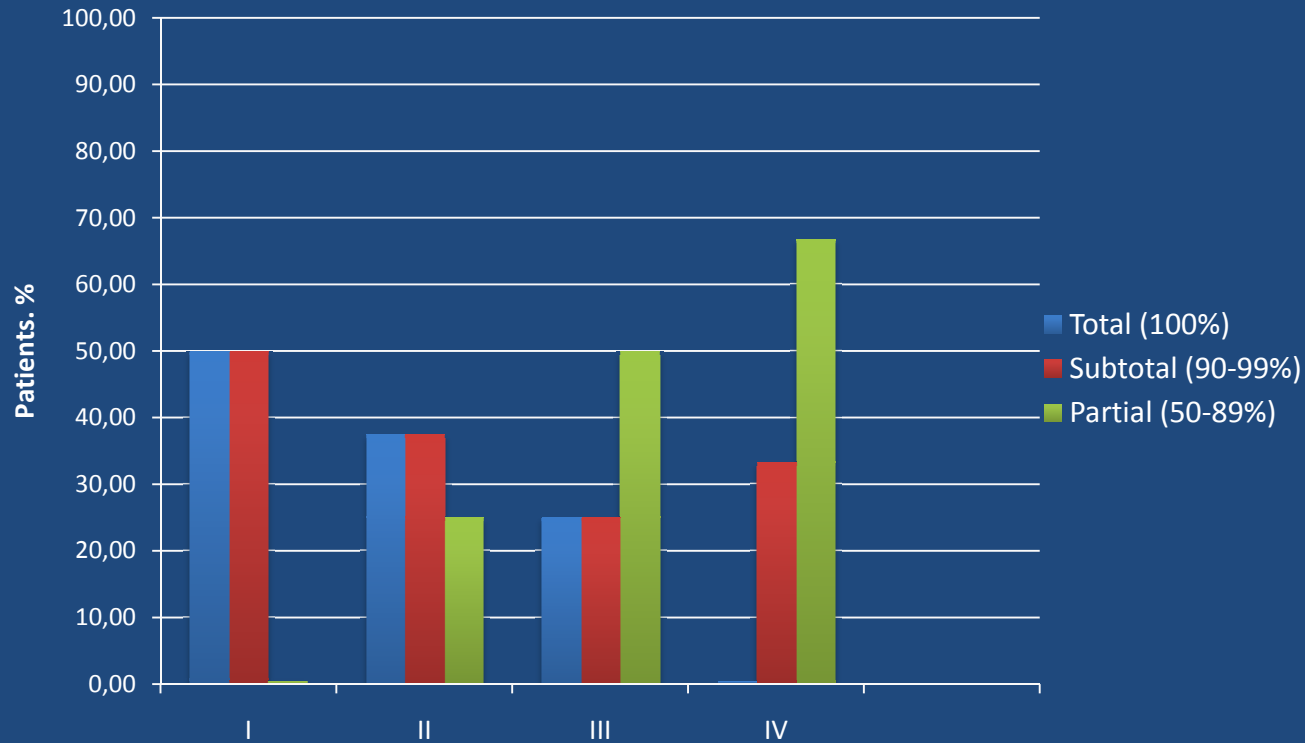
Results

- Average volume reduction 86% (range, 50%–100%)

Obliteration (%)	Patients(%)
Total (100%)	30.44 (7/23)
Subtotal (90-99%)	34.78 (8/23)
Partial (50-89%)	34.78 (8/23)

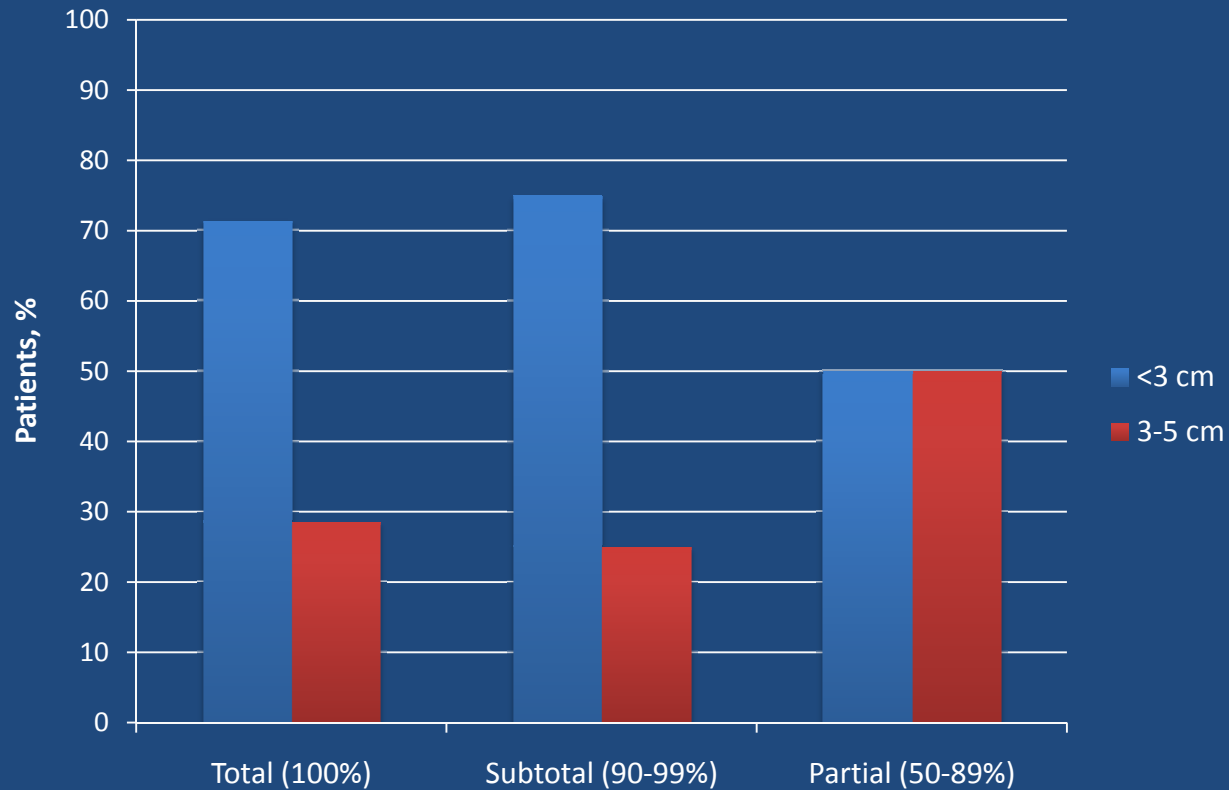
Results

- Occlusion according to *Martin-Spetzler* scale



Results

- Occlusion according to AVM size



Embolization related complications 17 %

- 3 cases of bleeding (13%)
 - 2 followed by surgery
 - 1 by conservative treatment
- 1 cases of nondisabling neurological deficits (4 %)

Post treatment

- 12 patients completed (52.1%):
 - 7 completed by embolization (30.4%)
 - 4 followed by surgery (17.4%)
 - 1 followed by radiosurgery (4.3%)
- 11 patients with residual AVM

Conclusion

- The liquid embolisation system Onyx allows a comparatively safe and controllable approach for the penetration of IAVM nidus and their obliteration.
- The risk associated with the procedure is slightly higher than stated in literature, although without remaining neurological deficits or resulting mortality.

Conclusion

- Postembolization hemorrhage is the most feared complication.
- Evaluations of hemorrhage after embolisation procedures are still being conducted.

Thak for your atention!