



OBSIDIO™ Conformable Embolic | PUBLICATION SUMMARY

A Single Institution Experience with a Shear-Thinning Conformable Embolic for Endovascular Embolization

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STUDY OVERVIEW

- Case series of the first 21 patients treated with Obsidio Embolic at a single academic center (Rutger's University, New Jersey) from October 2023 to February 2024
- Study assessed safety and feasibility of Obsidio Embolic for treatment in peripheral vasculature

METHODS

- First 21 patients treated at the site were retrospectively reviewed
- Technical success was defined as stasis, as assessed by a static contrast column for at least 5 heartbeats on post-embolization angiography.
- Clinical success was assessed in peripheral vascular hemorrhage and defined as resolution without reintervention within 30-day follow-up
- Adverse events classified by CIRSE criteria

RESULTS

- Access vessel, indication, microcatheters, procedure time, follow-up time, etc. in table to the right.
- Technical success: 100% (n = 21/21) vessels
- Clinical success: 8/8 (100%) in patients with peripheral vascular hemorrhage and >30-day follow-up. 5 of 13 patients with peripheral vascular hemorrhage were not assessed due to follow-up <30 days. Clinical success in other indications were not measured.
- 0 post-procedure adverse events or rebleeding
- In preoperative embolization (n=4), estimated blood loss ranged 50 to 400 cc with no operative complications
- 0 nontarget embolizations
- 5 (23.8%) patients were coagulopathic within prior to embolization (INR >1.5)
- Obsidio Embolic volume utilized per embolization: 0.1 – 1.4 cc, 20/21 used less than 1 cc
- 4 procedures used a coil backstop prior to Obsidio Embolic delivery to prevent distal embolization (splenic artery, GDA, 2x lower pole renal branch)
- 2 patients received pre-cryoablation embolization, with no hemorrhage noted on post-procedure CT imaging

Table 1: Patient and procedure characteristics and embolization outcomes

Patient characteristics	
Age: median (range)	61.5 (12–89)
Sex, male: n (%)	18 (85.7)
Indication: n (%)	
Hemorrhage	13 (61.9)
Preoperative embolization	4 (19.0)
Pre-cryoablation embolization	2 (9.5)
Pre-Yttrium-90 intrahepatic flow diversion	1 (4.7)
Variceal embolization	1 (4.7)
Procedure characteristics and outcomes	
Access vessel: n (%)	
Common femoral artery	8 (38.1)
Radial artery	12 (57.1)
Internal jugular vein	1 (4.7)
Microcatheter	
2.4 French: n (%)	13 (61.9)
2.8 French: n (%)	8 (38.1)
Procedure time, minutes: median (range)	68 (30–188)
Fluoroscopy time, minutes: median (range)	12.7 (3.9–34.8)
Adjunct embolic used: n (%)	4 (19.0)
Stasis achieved: n (%)	21 (100)
Length of follow-up, days: median (range)	57 (0–244)
Treatment-related adverse events: n (%)	0 (0)
Reintervention rate (%)	0 (0)

DISCUSSION

- Obsidio Embolic provided reliable vessel occlusion with no procedure-related adverse events, no cases of rebleeds, and no off-target embolizations in this case series
- Measurement of clinical success was limited to 8 patients with peripheral hemorrhage and >30-day follow-up but agrees with previously published studies by Pal et. Al. and Drews et. Al.
- Obsidio Embolic may provide advantages over traditional liquid embolics including limited preparation delay, lack of catheter entrapment, improved control, and reduced CT artifact
- Larger sample sizes and multicenter studies are needed; the ongoing OCCLUDE registry seeks to further elucidate the safety and effectiveness of Obsidio Embolic embolization

Read the full study here: <https://doi.org/10.1007/s00270-025-04012-y>

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OBSIDIO™ CONFORMABLE EMBOLIC

CAUTION: Federal law (USA) restricts this device to sale by or on the order of a licensed practitioner. Prior to use, please refer to all applicable "Instructions for Use" for more information on Intended Use/Indications for Use, Contraindications, Warnings, Precautions, Potential Adverse Events, and Operator's Instructions.

INTENDED USE / INDICATIONS FOR USE: Obsidio Conformable Embolic is indicated for use in the embolization of: • Hypervascular tumors, • Blood vessels to occlude blood flow for controlling bleeding/hemorrhaging in the peripheral vasculature. **CONTRAINDICATIONS:** • Patients with a known hypersensitivity to porcine product • Patients intolerant to occlusion procedures • Vascular anatomy or blood flow that precludes catheter placement or embolic agent injection, such as: • Presence or likely onset of vasospasm • Presence of severe atheromatous disease • Presence of collateral vessel pathways potentially endangering non-target vascular territories during embolization • Presence of arteries supplying the lesion not large enough to accept the selected device • Vascular resistance peripheral to the feeding arteries precluding passage of the product • Arteriovenous shunts (i.e., where the blood does not pass through an arterial/capillary/venous transition but directly from an artery to a vein) • Presence of patent extra-to-intracranial anastomoses or shunts • Presence of end arteries leading directly to cranial nerves • Use in the pulmonary, coronary, and intracerebral vasculature • Use in any vasculature where the product could pass directly into the internal carotid artery, vertebral artery, intracranial vasculature **WARNINGS:** • Serious adverse events have been observed with use in the gastrointestinal tract. When Obsidio Embolic is aliquoted or pushed with saline, it may alter the performance of the device. This can lead to unintended ischemia or necrosis of tissue especially in anatomic structures with little vascular collateralization. • Serious adverse events have been observed with use in the gastrointestinal tract. Immediately post deployment of Obsidio Embolic, avoid forceful fluid injections in or near the Obsidio Embolic material which could alter Obsidio Embolic performance and may increase the risk of non-target embolization. • The physician should be sure to carefully select the amount of Obsidio Embolic used according to the size of the catheter appropriate for the target vessels at the desired level of occlusion in the vasculature. • Extreme caution should be used for any procedures involving the extracranial circulation encompassing the head and neck. The physician should carefully weigh the potential benefits of using embolization against the risks and potential complications of this procedure, which may include blindness, hearing loss, loss of smell, paralysis and death. • Presence of air bubbles or voids within the Obsidio Embolic material may indicate a damaged product. If present, do not use syringe as patient injury may result. Replace with new Obsidio Embolic syringe. • As Obsidio Embolic syringe is being prepared for a wet-to-wet connection, the cohesivity of the product should be observed. If water or a water/tantalum suspension elutes from the syringe tip, the product should not be used, as this may indicate a damaged product that could result in patient injury. Replace with new Obsidio Embolic syringe **PRECAUTIONS:** Refer to Instructions for Use for all applicable information on Precautions. **POTENTIAL COMPLICATIONS:** Vascular embolization is a high-risk procedure. Complications may occur at any time during or after the procedure, and may include, but are not limited to, the following: • Paralysis resulting from non-targeted embolization • Ischemic injury from adjacent tissue edema • Undesirable reflux or passage of Obsidio Embolic into non-target arteries adjacent to the targeted lesion or through the lesion into other arteries or arterial beds of systemic circulation or, pulmonary, or coronary circulations, resulting in non-target embolization • Pulmonary embolism and/or stroke due to arterial-venous shunting, for example from a patent foramen ovale • Ischemia at an undesirable location including ischemic stroke, ischemic infarction (including myocardial infarction), and tissue necrosis • Capillary bed occlusion and tissue damage, which may lead to abscess formation and sepsis • Vessel or lesion rupture and hemorrhage • Recanalization • Foreign body reactions necessitating medical intervention • Infection necessitating medical intervention • Complications related to catheterization (e.g., hematoma at the site of entry, clot formation at the tip of the catheter and subsequent dislodgment, and nerve and/or circulatory injuries, which may result in leg injury) • Allergic reaction to medications (e.g., analgesics), contrast media or embolic material • Pain and/or rash, possibly delayed from the time of embolization • Death • Neurological deficits, including cranial nerve palsies/injury (e.g., blindness, hearing loss, loss of smell and/or paralysis) • Additional information is found in the Warnings section **97222344 B**

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