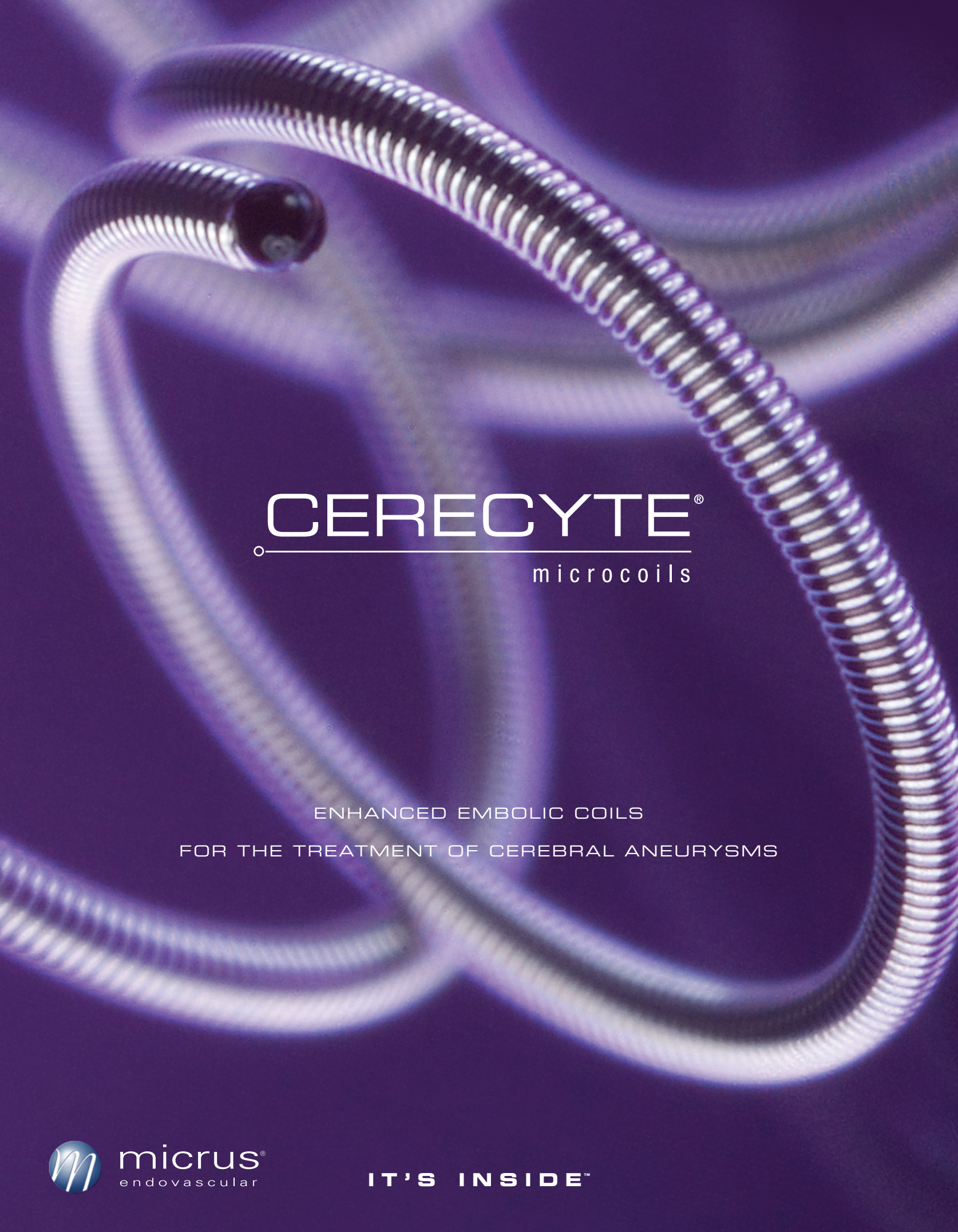

CERECYTE®
microcoils
ENHANCED EMBOLIC COILS
FOR THE TREATMENT OF CEREBRAL ANEURYSMS
micrus®
endovascular
IT'S INSIDE™

It's Inside™

Inside each **CERECYTE®** Microcoil, a stretch-resistant polyglycolic acid (PGA) element is uniquely positioned within the primary wind of the coil.

It's Responsive

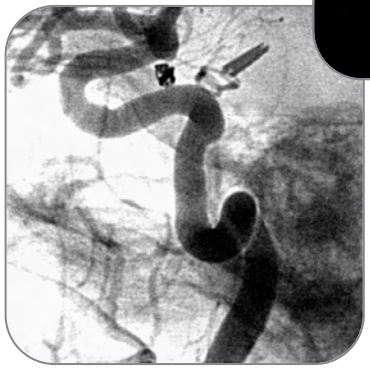
Induced tissue response* provides support for neointimal formation across the aneurysm neck with handling and packing volume equivalent to Micrus® bare platinum coils.

It Performs

Case 1

Diagnosis: A 47-year-old female presented with a right posterior communicating artery aneurysm measuring 4 mm x 2 mm, with a 2 mm neck. This patient had a left internal carotid artery aneurysm that was previously clipped.

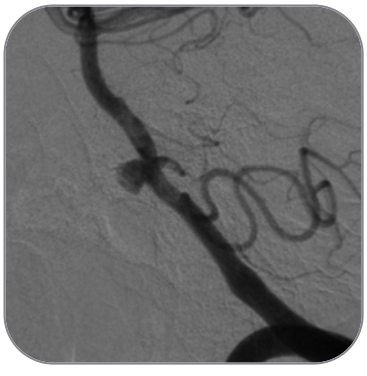
Treatment: The aneurysm was accessed and a total of three CERECYTE Microcoils were utilized: a 2 mm MICRUSPHERE® Microcoil (2.5 cm length) was deployed followed by two 2 mm ULTIPAQ® Microcoils (2 cm and 1 cm lengths).



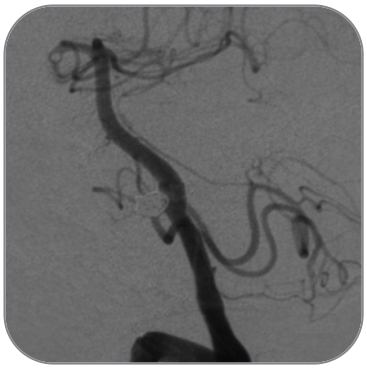
6-Month Follow-Up: Angiography and 3-D reconstruction show complete occlusion of the aneurysm at 6 months.

Courtesy of Dr. Sean Pakbaz, UCSD Medical Center, San Diego, California

Case 2



Diagnosis: A 45-year-old female presented with an unruptured fenestrated basilar artery aneurysm arising on the right measuring 6 mm x 6 mm, with a 1.3 mm neck. The patient has another 1.3 mm aneurysm off the left side of the fenestration that was too small to coil.



Treatment: The aneurysm was accessed and a total of six CERECYTE MICRUSPHERE Microcoils were utilized in a "Russian doll" technique, beginning with a 7 mm and followed by a 6 mm, a 5 mm, two 4 mm, and a 3 mm.

12-Month Follow-Up: Angiography shows complete occlusion at 12 months.

Courtesy of Dr. Matt Berlet, St. Joseph's Hospital, Tampa, Florida

*PGA appears to have induced tissue response. Animal studies data on file, Micrus Endovascular Corporation.

CERECYTE® Microcoils:

- A full line of enhanced embolic coils
  - Equivalent deliverability and handling characteristics as bare platinum coils
  - Wide variety of spherical, complex and helical secondary shapes in various lengths and diameters
- Volume in = Volume in
  - Packs and maintains volume equivalent to that of bare platinum coils
- Fast, easy detachment
  - Consistent 2 second detachment cycle
  - No patient grounding required
- Stretch-resistance
  - Increased coil security brings added confidence when needing to remove a coil
  - Allows repositioning of coil, when needed

CERECYTE®
microcoils

CERECYTE® Microcoils:

MICRUSPHERE® Microcoil

PRESIDIO® Microcoil

CASHMERE™ Microcoil

DELTAPAQ™ Microcoil

DELTAPLUSH™ Microcoil

ULTIPAQ® Microcoil

Accessories:

ENPOWER™ Detachment Control Box

ENPOWER™ Control Cable

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www.micruscorp.com

Cerecyte® Coils

IT'S INSIDE™

P/N 50305-01 Rev G

CERECYTE®
microcoils

The Inside Advantage

Unlike coated coils, Micrus® CERECYTE® Microcoils feature a PGA polymer on the inside of the coil. This provides a number of key advantages:

- Coaxial polymer thread permits better coil conformability, leading to denser packing of aneurysms
- Smoother platinum metal surface lowers friction and handles like "bare platinum"
- Retention of overall platinum packing volume even after polymer absorption*

Volume In = Volume In

With an exterior coating, absorption can lead to a reduction in packing volume over time. With the PGA polymer on the inside of each CERECYTE Microcoil, dense packing can be achieved at time of packing and remains over time. At a minimum, platinum in equals platinum in.

Matrix2 Microcoil Segments

With Matrix2 coated coils, platinum packing density is reduced by 41% upon polymer absorption.

CERECYTE Microcoil Segments

CERECYTE Microcoils maintain overall platinum volume after polymer has been absorbed.

* Data on file, Micrus Endovascular Corporation.
† Microcoils analyzed using scanning electron microscopy (SEM) at 100% magnification.

Why Compromise Packing Density with Coated Coils?

Published Studies of Matrix Coils Conclude:

STROKE

Polyglycolide/Polylactide-Coated Platinum Coils for Patients with Ruptured and Unruptured Cerebral Aneurysms: A Single-Center Experience[1]

We hypothesize that the high percentage of polymer creates an increase in contact points between the coil and the inner surface of the catheter. Consequently, the axial force required to advance the coil is higher. With regard to compartmentalization, the polymer is braided over the wire, therefore not allowing break points within the coil to be active. This may result in less compliance of the coil as it folds against the endothelium of the aneurysm and other coils.

NEUROSURGERY

Durability of Aneurysm Embolization with Matrix Detachable Coils[2]

The rates of recanalization observed in the present series were comparable to, or worse than, those reported for bare platinum coils.

When considered in the context of the available data on the durability of bare platinum coil embolization, the recanalization (36.6%) and retreatment (23.1%) rates indicate that the results achieved with the MDC system are not superior to those reported for bare platinum detachable coils systems.

Published CERECYTE® Study Concludes:

AJNR

CERECYTE Coils in the Treatment of Intracranial Aneurysms: A Preliminary Clinical Study[3]

These preliminary data suggest that this new PGA-loaded coil is not associated with an increased complication rate. The handling of the coil and the primary occlusion rate are comparable to those of the bare platinum coils. The low recanalization rate is promising and warrants a larger randomized controlled trial.

1. Linfante I, Akkawi NM, Perlow A, Andreone V, Wakhloo AK. Polyglycolide/polylactide-coated platinum coils for patients with ruptured and unruptured cerebral aneurysms: a single-center experience. *Stroke.* 2005;36:1948-1953.
2. Fiorella D, Albuquerque FC, McDougall CG. Durability of aneurysm embolization with Matrix detachable coils. *Neurosurgery.* 2006;58:51-59.
3. Bendszus M, Solymosi L. CERECYTE coils in the treatment of intracranial aneurysms: a preliminary clinical study. *AJNR.* 2006;27:2053-2057.

Learn more about the latest information on the CERECYTE Coil Trial at **www.cerecytecoiltrial.com**

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Cerecyte® Coils
IT'S INSIDE™

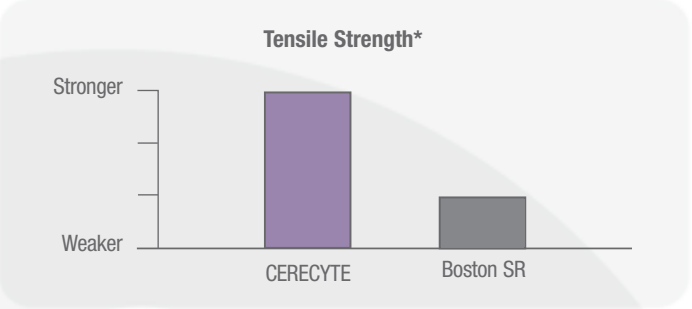
P/N 50796-01 Rev B

CERECYTE®
microcoils

The Inside Advantage Is No Stretch

Stretch-Resistant from the Inside Out

CERECYTE® Microcoils are built on a foundation of strength. In fact, the stretch-resistant fibers used in CERECYTE Microcoils are among the strongest in the industry. As a result, they deliver tensile strength that is superior to other stretch-resistant coils.



Confidence Comes from Within

The fact is, CERECYTE Microcoils stay intact—during deployment, after detachment, even during repositioning or retrieval.

In bench-top testing, CERECYTE inside members were found to be securely intact with the platinum outer wind even after rigorous snaring.†

* Data on file.
† Data on file; n=20.

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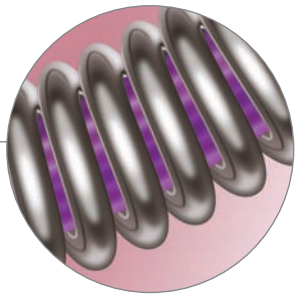
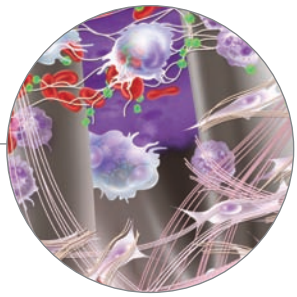
The Inner Workings



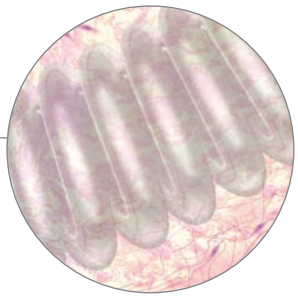
The Inside Advantage

The PGA polymer is uniquely positioned within the primary wind of the coil. As a result, CERECYTE® Microcoils are stretch-resistant and handling characteristics are similar to bare platinum coils, allowing for dense packing of the aneurysm with no change in coiling technique.



It's Molecular!

*Induced tissue response:** The molecular breakdown of PGA occurs through hydrolysis. Water molecules from blood and other body fluids contact PGA through interstices of the coil. Macrophages, or white blood cells, engulf and digest the PGA. Fibroblasts then produce collagen in a structural, weblike fashion.



It's Responsive!

Collagen-producing fibroblasts transition to fibrocytes, maturing into a fibrous collagenous scaffolding that is formed within the aneurysm body. This provides support for neointimal formation across the aneurysm neck. In addition, initial platinum volume density is maintained within the aneurysm.

*Polyglycolic acid (PGA) appears to have induced tissue response. Animal studies data on file, Micrus Endovascular Corporation.

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