**CASE DESCRIPTION**

Celiac trunk angiogram showed hepatic artery to portal vein fistula.

Selective right hepatic artery catheterisation showed the early opacification of the portal vein.

**DEVICE**

A 5 mm MVP™ microvascular plug system was placed under local anesthesia in the main trunk of the IMA. Access was gained from the SMA fenestration through Riolans Arcade.

A Progreat Omega™ micro catheter from Terumo was used.

**PATIENT OUTCOME**

The IMA was immediately embolized post procedure and remained embolized at follow up.
CASE DESCRIPTION
Patient has active bleeding due to trauma. The angiogram shows the circumflex iliac artery and the extravasation and the site for embolization.

DEVICE
3 mm MVP™ micro vascular plug system.

PATIENT OUTCOME
The MVP™ plug was deployed in the circumflex iliac artery and stopped the bleeding.

CIRCUMFLEX ARTERY BLEED DUE TO TRAUMA

PRE-EMBOLIZATION ANGIOGRAM

POST-EMBOLIZATION ANGIOGRAM

CASE DESCRIPTION
Patient presented with hepatocellular carcinoma. The angiogram showed a tumor in the phrenic artery. It was decided to embolize the artery shown by the curved arrow before performing chemotherapy to avoid chemo-agents in non target vessels.

DEVICE
5 mm MVP™ micro vascular plug.

PATIENT OUTCOME
The patient showed good uptake after placement of MVP™ plug. The tumor was treated with chemo embolization.

PRE-CHEMO EMBOLIZATION OF PHRENIC ARTERY TUMOR

PRE-EMBOLIZATION ANGIOGRAM

POST-EMBOLIZATION ANGIOGRAM

Case provided by:
Jafar Golzarian, MD
Professor of Radiology and Surgery
University of Minnesota Medical Center
420 Delaware Street S.E.
B228-A Mayo Memorial Building
Minneapolis, MN 55455

Results may vary. Not all patients achieve the same results.

Indications, contraindications, warnings, and instructions for use can be found on the product labeling supplied with each device.
PATIENT WITH SPLENIC ARTERY TRAUMA

CASE DESCRIPTION
Patient with splenic trauma and extravasation of contrast media.

PATIENT OUTCOME
The post-procedure angiogram showed occlusion in the vessel. The patient did very well clinically. A follow up CT scan of the patient showed positive results.

DEVICE
3 mm and 5 mm MVP™ micro vascular plug.

PRE-EMBOLIZATION ANGIOGRAM
AFTER FIRST MVP™ PLUG DEPLOYMENT
FINAL ANGIOGRAM

Case provided by:
Jafar Golzarian, MD
Professor of Radiology and Surgery
University of Minnesota Medical Center
420 Delaware Street S.E.
B228-A Mayo Memorial Building
Minneapolis, MN 55455

SIRT: Selective Internal Radiation Therapy

CASE DESCRIPTION
Patient is a 40 year old female with breast cancer metastatic to the liver.

PATIENT OUTCOME
The GDA artery was immediately embolized.

DEVICE
5 mm MVP™ micro vascular plug.

PRE-EMBOLIZATION ANGIOGRAM
POST-EMBOLIZATION ANGIOGRAM

Results may vary. Not all patients achieve the same results.

Indications, contraindications, warnings, and instructions for use can be found on the product labeling supplied with each device.
CASE DESCRIPTION
Patient is a 78 year old female with AML in blast crisis, who was admitted for persistent bleeding and melena via NG tube, and found to have duodenal ulcer on endoscopy. She has had 11 transfusions, unsuccessful in raising hemoglobin. It was decided to embolize the gastroduodenal artery.

DEVICE
3 mm and 5 mm MVP™ micro vascular plug.

PATIENT OUTCOME
The GDA artery was immediately embolized.

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CASE DESCRIPTION
Patient is a 65 year old female with a history of epistaxis and recently diagnosed brain abscess. It was decided to embolize this pAVM.

DEVICE
5 mm MVP™ micro vascular plug.

PATIENT OUTCOME
A branch of pulmonary artery was embolized with the 5 mm MVP™ plug. The post procedure angiogram showed a complete occlusion of the pAVM.

Results may vary. Not all patients achieve the same results.

Indications, contraindications, warnings, and instructions for use can be found on the product labeling supplied with each device.
GAME-CHANGING TECHNOLOGY

MVP™ PLUG MINIMIZES CT ARTEFACTS

MVP™ plug
Coils

Images are property of Medtronic
### MVP™ Micro Vascular Plug System

<table>
<thead>
<tr>
<th>Product code</th>
<th>Recommended vessel size</th>
<th>MVP™ device outer diameter unconstrained</th>
<th>MVP™ device length unconstrained</th>
<th>Delivery wire length</th>
<th>Min recommended micro catheter ID for 3Q / 5Q - and OD for 7Q/9Q</th>
<th>Max recommended length of micro catheter / delivery catheter</th>
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<td>1.5 – 3.0 mm</td>
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<td>18 mm</td>
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<td>5Fr</td>
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