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CASE STUDY

Share Your Direxion™ Story

Unmatched Torque and Tracking for Hepatic Anatomy

Ilan Rzadkowolsky-Raoli, MD – Palmetto General Hospital, Hialeah, Florida


Figure 1

A 65-year-old man with large hepatocellular carcinoma (HCC) occupying segments 7 and 8 of the liver presented with rapid decompensation with hypotension, tachypnea, and a 6 g/dL drop in hemoglobin in 12 hours. A quick noncontrast CT scan showed evidence of tumor rupture with a large amount of hemoperitoneum. A celiac angiogram showed active extravasation of contrast from a posterior branch of the right hepatic artery supplying the HCC (Figure 1). There was poor perfusion to the remaining liver due to systemic low blood pressures.

> **"With its unmatched torqueability and trackability as a consequence of its unique shaft design, Direxion is rapidly becoming my first choice."**

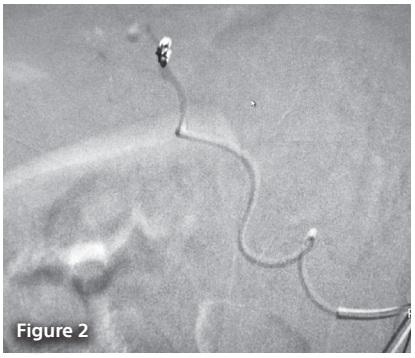
Figure 2

The first twist after the tip of the guiding catheter just before the gastroduodenal artery branch is a very acute turn, reversing almost 135° on itself. **Another microcatheter would not make this turn without kicking out the guiding catheter.** This was the first case in which I was able to use the Direxion Microcatheter.

After the tight loop was surpassed (Figure 2) while maintaining guiding catheter placement, three more turns were navigated, including another relatively sharp angulation at the branching of the offending artery. **Most other small-bore catheters would have surrendered their torqueability after the first turn.** Gaining this position was the key to successfully prosecuting the case (Figure 3).

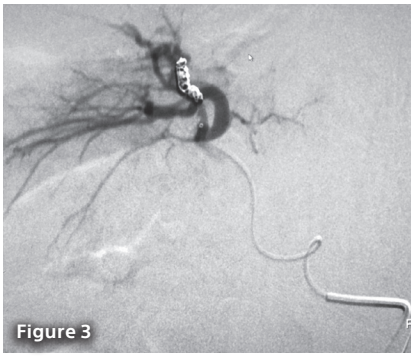
Figure 3

The case in this article illustrates the capabilities of the Direxion Microcatheter to outperform most other examples of its class. With its **unmatched torqueability and trackability as a consequence of its unique shaft design,** as well as its slick feel due to its lubricious outer coating, the Direxion is rapidly becoming my first choice for slightly challenging anatomy. Add to this mix the array of tip configurations and both high-flow and low-profile diameters, and there is no location that cancer is safe!

DIREXION™ AND DIREXION HI-FLO™

CAUTION: Federal law (USA) restricts this device to sale by or on the order of a physician. Rx only. Prior to use, please see the complete "Directions for Use" for more information on Indications, Contraindications, Warnings, Precautions, Adverse Events, and Operator's Instructions.

INTENDED USE/INDICATIONS FOR USE: The Direxion and Direxion HI-FLO Torqueable Microcatheters are intended for peripheral vascular use. The pre-loaded Fathom and Transend Guidewires can be used to selectively introduce and position the microcatheter in the peripheral vasculature. The microcatheter can be used for controlled and selective infusion of diagnostic, embolic, or therapeutic materials into the vessel. **CONTRAINDICATIONS:** None known. **WARNINGS:** • Never advance or withdraw an intravascular device against resistance until the cause of resistance is determined by fluoroscopy. Movement of the microcatheter or guidewire against resistance may result in damage or separation of the microcatheter or guidewire tip, or vessel perforation. • This Direxion Microcatheter family is not intended for use in the coronary vasculature or neurovasculature. • The Direxion HI-FLO Microcatheter is not designed for the delivery of embolic coils. • Use of excessive force to manipulate the microcatheter against resistance can cause a fracture in the nitinol shaft. Take care not to over-torque the microcatheter, and to relieve any tension before withdrawal by rotating the microcatheter in the opposite direction. **PRECAUTIONS:** • This device should be used only by physicians thoroughly trained in percutaneous, intravascular techniques and procedures. • Do not introduce the microcatheter without guidewire support as this may cause damage to the proximal shaft of the catheter. • Because the microcatheter may be advanced into narrow sub-selective vasculature, repeatedly assure that the microcatheter has not been advanced so far as to interfere with its removal. **ADVERSE EVENTS:** The Adverse Events include, but are not limited to: • Allergic reaction • Death • Embolism • Hemorrhage/Hematoma • Infection • Pseudoaneurysm • Stroke • Vascular thrombosis • Vessel occlusion • Vessel spasm • Vessel trauma (dissection, perforation, rupture) **90960724 Rev/Ver. AB.6**

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300 Boston Scientific Way
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