Partial Splenic Artery Embolization in the Treatment of Hypersplenism

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CASE PRESENTATION
A 30-year-old woman with a history of hepatitis B virus-related cirrhosis presented to our institution. In 2013, she underwent transarterial chemoembolization for hepatocellular carcinoma, followed by liver transplantation in August 2014. After surgery, the patient developed portal hypertension and hypersplenism (Figure 1). Partial splenic embolization was proposed.

PROCEDURE DESCRIPTION
From a right femoral access, we catheterized the splenic artery to perform diagnostic angiography using a 5-F sheath and a 4-F cobra catheter (Figure 2). We then decided to go distally to the peripheral intrasplenic branches to perform a more selective embolization.
A torqueable Direxion™ Microcatheter and a Fathom™-16 Guidewire were easily advanced through a tortuous splenic branch to perform superselective catheterization of three vessels supplying the upper middle third of the spleen. Subsequently, we embolized those branches using microcoils (Figure 3). After embolization, the patient developed transient abdominal pain, which remitted with administration of pain relief medication.

FOLLOW-UP AND DISCUSSION
A postembolization CT scan demonstrated a successful embolization with evidence of partial devascularization of the spleen, with minimal perisplenic and perihepatic fluid and the absence of major complications (Figure 4).
The patient showed significant reduction of portal pressure and was discharged a few days later. She was still in good clinical condition at follow-up.

Results from case studies are not necessarily predictive of results in other cases. Results in other cases may vary.