Successful Endovascular Treatment of Budd-Chiari in Essential Thrombocytosis Patients

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Fifty years old male patient was transferred our outpatient clinic diagnosis of Budd-Chiari syndrome (BCS) due to essential thrombocytosis from oncology clinic. Abdominal doppler ultrasonography (USG) examination revealed increases of portal vein diameter (Figure 1A), compression of main hepatic veins (HVs) and massive ascites (Figure 1B). Magnetic resonance imaging (MRI) confirmed the ultrasound findings with infra-hepatic inferior vena cava (IVC) dilatation and severe stenosis of IVC (Figure 1C). IVC and HVs angiography was performed using 6 Fr pigtail and right Judkins catheters via a transfemoral and transjugular approaches, respectively. An angiography showed significant stenosis of IVC and complete obstruction of HVs (Figure 2A). After progressive balloon dilatation of HVs with 2.5 x 20 mm/3.0 x 20 mm (Figure 2B), balloon angioplasty (18 mm in diameter) at the obstructed IVC segment was performed followed by self-expandable stent (40 x 24 mm diameter Wallstent, Boston Scientific, Marlborough, Mass) placement (Figure 2C). After dilatation of the stenotic segment by stent expansion and angioplasty of HVs (Figure 2D), IVC venography revealed restored normal flow through the IVC into the right atrium (Figure 2E). Five month after percutaneous treatment, abdominal distension disappeared with normal waveform/colour flow by Doppler USG and follow-up MRI scan of the abdomen showed a patent IVC and HVs (Figure 2F). Percutaneous treatment of IVC stenosis is safety, feasible and effective alternative procedure to surgery in carefully selected and high surgical risk BCS patients.

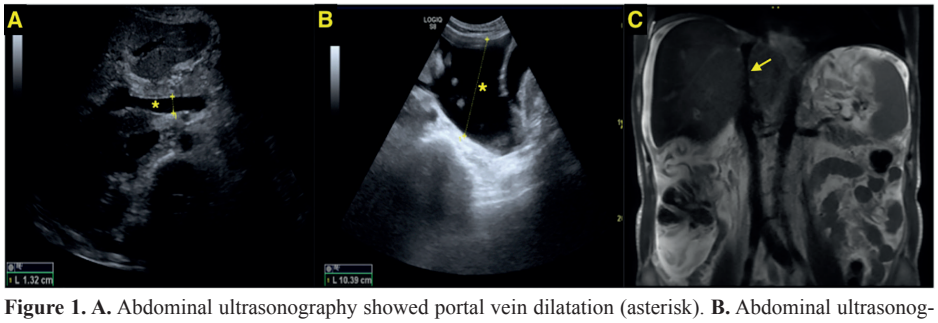

Figure 1. A. Abdominal ultrasonography showed portal vein dilatation (asterisk). **B.** Abdominal ultrasonography showed ascites collection (asterisk). **C.** Inferior vena cava (IVC) stenosis (arrow) was seen in magnetic resonans imaging (MRI).

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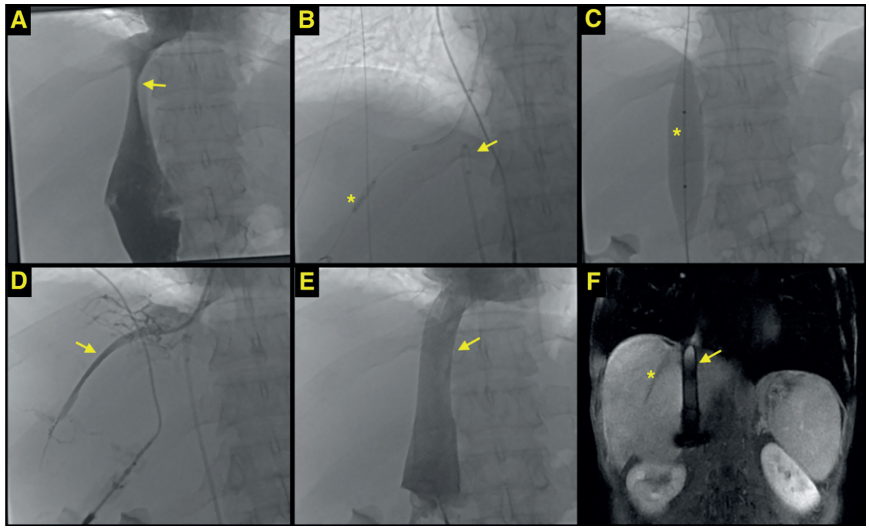

Figure 2. A. Angiography showed IVC stenosis (arrow). **B.** Hepatic vein baloon dilatation (asterisk) and pigtail catheter in IVC (arrow). **C.** IVC balloon dilatation (asterisk). **D.** Hepatic vein flow after angioplasty (arrow). **E.** IVC flow after stent implantation (arrow). **F.** MRI showed patent hepatic vein flow (asterisk) and IVC stent (arrow).

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