

## **To compare the feasibility and safety of mono-port catheter system and dual-port catheter system for advanced hepatocellular carcinoma (HCC) in patients with anatomic hepatic artery variation and portal vein tumor thrombosis” Kim et al (2018).**

### Abstract:

**PURPOSE:** To compare the feasibility and safety of mono-port catheter system and dual-port catheter system for advanced hepatocellular carcinoma (HCC) in patients with anatomic hepatic artery variation and portal vein tumor thrombosis.

**MATERIALS AND METHODS:** This retrospective study consisted of 22 patients with infiltrative or multiple HCC with unilateral or bilateral portal vein thrombosis who had hepatic artery variation. A mono-port or dual-port catheter system was determined according to the degree of blood supply to the entire tumor through the common hepatic and variant hepatic arteries. Intrahepatic perfusion pattern, hepatic toxicity, and tumor response were investigated on computed tomography, medical records, and follow-up imaging study.

**RESULTS:** The most common hepatic arterial variation was replaced right hepatic artery arising from the superior mesenteric artery (n = 16), followed by replaced left hepatic artery (n = 5) and replaced right posterior segmental artery (n = 1). Twelve patients were treated with mono-port catheter system, and 10 patients were treated with dual-port catheter system. All 10 patients in the dual-port group showed homogeneous distribution of contrast material in the entire liver after port implantation, and 6 patients (50%, n = 6/12) in the mono-port group showed heterogeneous distribution (P = .018). The objective tumor response rates (P = .361) were 18.2% and 40%, and the disease control rates (P = .395) were 36.4% and 60% in the mono-port and dual-port groups, respectively.

**CONCLUSIONS:** The dual-port ncatheter system is a safe and effective technique that allows the even distribution of hepatic arterial infusion chemotherapy without hemodynamic modification of anatomic variation in the hepatic arteries.

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### Reference:

Kim, S.H., Oh, J.S., Chun, H.J., Choi, B.G. and Lee, H.G. (2018) Dual-Port versus Mono-Port Implantation for Intra-Arterial Chemoinfusion Therapy for Treatment of Hepatocellular Carcinoma in Patients with Anatomic Hepatic Artery Variation. *Journal of Vascular and Interventional Radiology*. October 5th. .

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