Topic : Biliary & Pancreas

## MINIMALLY INVASIVE SPLEEN-PRESERVING DISTAL PANCREATECTOMY: SPLENIC VESSEL-PRESERVING PROCEDURE IS A "DOUBLE-EDGED SWORD" IN LEFT-SIDED PORTAL HYPERTENSION

Yusuke WATANABE<sup>1</sup>, Kohei NAKATA<sup>1</sup>, Toshiya ABE<sup>1</sup>, Noboru IDENO<sup>1</sup>, Naoki IKENAGA<sup>1</sup>, Masafumi NAKAMURA<sup>1</sup>

<sup>1</sup> Department of Surgery And Oncology, Graduate School of Medical Sciences, Kyushu University, Japan

**Background** : Spleen-preserving distal pancreatectomy (SPDP) involves two procedures, splenic vessel preservation (Kimura) and splenic vessel resection (Warshaw). This study evaluated the outcomes after minimally invasive (MI) Kimura and Warshaw SPDP.

**Methods** : The medical records of 114 consecutive patients who underwent MI-SPDP (Kimura group, n=53; Warshaw group, n=61) between 2012 and 2022 were retrospectively reviewed.

**Results** : Most short-term outcomes were comparable between the groups, except for splenic infarction. The prevalence of radiological splenic infarction was significantly lower in the Kimura group than in the Warshaw group (6% vs. 44%;  $P\langle 0.01 \rangle$ , although splenic infarctions were clinically harmless. The incidences of perigastric and gastric intraluminal venous dilatation confirmed on CT during follow-up were significantly lower in the Kimura group than in the Warshaw group (45% vs. 84%;  $P\langle 0.01 \rangle$  and 21% vs. 41%; P=0.01, respectively). Postoperative changes in splenic volume were significantly smaller in the Kimura group than in the Warshaw group (median, 18% vs. 28%; P=0.04). However, 40% of patients in the Kimura group developed postprocedural splenic venous stenosis during follow-up; most of these patients had left-sided portal hypertension (LSPH), and postoperative splenic volume changes were significantly greater than those in patients after the Warshaw procedure (median, 42% vs. 28%, P=0.04).

**Conclusions** : The short- and long-term outcomes of patients after both procedures are comparable. The Kimura procedure has the potential risk of postoperative splenic venous stenosis during the follow-up period, which causes LSPH. Establishing patient selection criteria and suitable surgical procedures to prevent splenic venous stenosis after the MI-Kimura procedure is needed.

Corresponding Author : Masafumi NAKAMURA (nakamura.masafumi.861@m.kyushu-u.ac.jp)