

**LV PP 4-2****Clinical Experience of Somatostatin for the Treatment of Severe Posthepatectomy Liver Failure**

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Introduction : Posthepatectomy liver failure (PHLF) is a major cause of morbidity and mortality after major liver resection. Postoperative excessive portal pressure could cause shear stress to the small remnant liver leading to a PHLF. This study aimed to report the clinical experience of somatostatin for portal modulation in patients with severe PHLF.

Methods : This retrospective study enrolled 15 patients who received somatostatin for the treatment of PHLF between 2016 and 2019. When the patients fulfilled the 50-50 criteria (serum bilirubin >2.9 mg/dL and prothrombin time <50%) on or before postoperative day 5, somatostatin (3.5 ug/kg/h) was administered by continuous infusion. The discontinuation criteria were as follows: serum bilirubin <2 mg/dL and prothrombin time ≥50%. Prospectively collected clinical characteristics, laboratory tests, postoperative morbidity and mortality were evaluated.

Results : The study cohort consisted of 8 patients with hepatocellular carcinoma, 6 with cholangiocarcinoma, and 1 with colon cancer liver metastasis. Seven patients (46.7%) had underlying liver cirrhosis, and 14 (93.3%) underwent major hepatectomy. The median start time of somatostatin was postoperative day 1 (range 1–19), and the median duration of administration was 9 (2–29) days. There was no obvious side effects or hypersensitivity related to the somatostatin. The median hospital stay was 37 (21–249) days. The 30-day and 90-day mortality were both 6.7% (1 of 15 patients).

Conclusions : Administration of somatostatin in the early postoperative period is considered to be effective for the treatment of PHLF. Further prospective comparative clinical trials are needed to validate this finding.

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