



EP 007

Incidence And Predictive Factors Of Post-hepatectomy Liver Failure, Siriraj Experience

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Background : Hepatectomy is the standard treatment for either malignant or benign liver disease. Inadequate future liver remnant will lead to post-hepatectomy liver failure (PHLF) that increase morbidity and mortality to the patients, however, the other cause may not well-defined. The aim of this study is to identify incidence and predictive factors of post-hepatectomy liver failure in Siriraj Hospital.

Methods : The medical records of the patients who underwent hepatectomy in Siriraj Hospital between 2018 and 2020 were retrospectively reviewed. The diagnosis and severity of post-hepatectomy liver failure were categorized according to the International Study Group of Liver Surgery criteria.

Results : A total of 419 hepatectomy patients were included. PHLF was developed in 70 patients (16.7%), including grade A 15 (3.6%), grade B 41 (9.8%) and grade C 14 (3.3%). The factors affect PHLF were statistically significant found in patient with preoperative diabetes mellitus ($p < 0.001$), serum albumin level ≤ 3.5 g/dL ($p < 0.001$), major hepatectomy ($p < 0.001$) and intraoperative blood loss > 1 L ($p = 0.03$). Patients in PHLF group have higher mortality than those in non-PHLF group (10.0% vs 1.1%, $p = 0.001$)

Conclusions : PHLF remains a serious complication in patients undergoing hepatectomy that increase mortality. We found that diabetes mellitus, low serum albumin, major hepatectomy and intraoperative blood loss greater than 1 liter were associated with post-hepatectomy liver failure. Consideration with these factors may improve outcome of the surgery.

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