## **Summary**

## Usefulness of <sup>99m</sup>Tc-GSA Scintigraphy for Estimation of Residual Hepatic Functions and Postoperative Changes of HH15 and LHL15

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We investigated the usefulness of 99mTc-GSA scintigraphy for estimation of residual hepatic functions and postoperative changes of HH15 and LHL15. <sup>99m</sup>Tc-GSA scintigraphy was performed on 61 patients and following points were studied: 1) correlation between HH15-LHL15 and conventional liver function tests, 2) correlation between HH15-LHL15 and the Child classification, 3) relations of preoperative HH15 and LHL15 to postoprerative complications after hepatectomy, 4) early changes of HH15 and LHL15 after hepatectomy, 5) changes of HH15 and LHL15 1 year after hepatectomy, and 6) changes of HH15 and LHL15 1 year after Hassab's operation. Results were as follows. 1) There were significant relations between preoperative HH15 and ICGR15 and Alb. There were significant relations between preoperative LHL15 and ICGR15, T-Bil, Alb, HPT and ChE. 2) There were significant relations between preoperative HH15-LHL15 and the Child classification. 3) In Hr2 group, preoperative LHL15 of patients who contracted postoperative complications had been significantly lower than that of those who did not. 4) There were no early changes of HH15 and LHL15 after hepatectomy. 5) HH15 and LHL15 were significantly improved 1 year after hepatectomy. 6) HH15 were significantly improved 1 year after Hassab's operation. We concluded that <sup>99m</sup>Tc-GSA scintigraphy is useful for estimation of residual liver function tests and for investigation of changes after surgery from viewpoints different from conventional hepatic function tests.

**Key words:** <sup>99m</sup>Tc-GSA scintigraphy, Hepatic function, Hepatectomy, ASGPR, Hassab's operation.