

Abstract

Objective

The usefulness of the modified Glasgow prognostic score (GPS) as a prognostic tool remains unclear for patients undergoing curative surgery for intrahepatic cholangiocarcinoma (ICC). Therefore, this study investigated the prognostic usefulness of the GPS for patients who underwent ICC surgery.

Method

All ICC patients who had a curative-intent hepatectomy at 17 institutions between 2000 and 2016 were included. The correlation was assessed between the preoperative GPS and the baseline characteristics of the patients, histopathological parameters, surgical parameters, and the postresection overall survival (OS).

Result

There were 273 patients who met the eligibility criteria between the years 2000 and 2016. The postoperative OS rates at 1, 3, and 5 years were 83.8%, 56.3%, and 41.5%, respectively (median OS, 47.7 months). A multivariate analysis revealed the factors that were associated with a worse OS, which included an increased GPS (hazard ratio = 1.62; 95% confidence interval [CI]: 1.01–2.53; $P = 0.03$), an elevated carcinoembryonic antigen level (hazard ratio = 1.60; 95% CI: 1.06–2.41; $P = 0.02$), an elevated carbohydrate antigen 19–9 level (hazard ratio = 1.55; 95% CI: 1.05–2.30; $P = 0.03$), undifferentiated carcinoma (hazard ratio = 2.41; 95% CI: 1.56–3.67; $P < 0.01$), and positive metastasis to the lymph nodes (hazard ratio = 2.54; 95% CI: 1.76–3.67; $P < 0.01$). In ICC patients after a hepatectomy, an elevated GPS was associated with poorer OS, even if the tumour factors that affected GPS were eliminated by propensity-score matching.

Conclusion

Preoperative GPS can be useful to predict the postoperative outcomes of ICC patients. Therefore, this relatively simple and inexpensive scoring system can be utilized to further refine patient stratification as well as to predict survival.