

## Scientific research process

Prognostic Value of the Neutrophil-to-Lymphocyte Ratio for Hepatocellular Carcinoma with Portal/Hepatic Vein Tumor Thrombosis

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1 What did this study explore?

Portal/hepatic vein tumor thrombosis (PVTT/HVTT) in hepatocellular carcinoma (HCC) is a sign of advanced stage disease and is associated with poor prognosis. Accumulated evidence has shown that hepatectomy can improve the survival of HCC patients with PVTT/HVTT recently, although the median survival duration is still unsatisfactory. The reasons for this remain unclear and seem to be complex and multifactorial. Systemic inflammatory response generated by tumors has been shown to cause upregulation of cytokines and inflammatory mediators, leading to promotion of angiogenesis, damage of DNA, and inhibition of apoptosis. The presence of a systemic inflammatory response can be detected by the elevation of the neutrophil-to-lymphocyte ratio (NLR), which has been shown associated with

poorer prognosis in patients with various types of malignant tumors. The aim of the present study was to investigate whether preoperative neutrophil-to-lymphocyte ratio (NLR) could predict the prognosis of hepatocellular carcinoma (HCC) patients with Portal/Hepatic Vein Tumor Thrombosis (PVTT/HVTT) after hepatectomy.

2 How did the authors perform all experiments?

The present study was not involved with experiments.

3 How did the authors process all experimental data?

The present study was not involved with experiment data.

4 How did the authors deal with the pre-study hypothesis?

There were no pre-study hypothesis in present study.

5 What are the novel findings of this study?

Our findings confirm that NLR could be used as a potential prognostic predictor for HCC patients with PVTT/HVTT after resection. The results of the present study may bring a new serum marker for predicting post-operation survival of these patients.