Evaluation the effect of partial splenic embolization on platelet values for liver cirrhosis patients with thrombocytopenia

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摘要

Abstract

AIM: To investigate the effect of partial splenic embolization (PSE) on platelet values in liver cirrhosis patients with thrombocytopenia and to determine the effective embolization area for platelet values improvement.METHODS: Blood parameters and liver function indicators were measured on 10 liver cirrhosis patients (6 in Child-Pugh grade A and 4 in grade B) with thrombocytopenia (platelet values $< 80 \times 103/\mu$ L) before embolization. Computed tomography scan was also needed in advance to acquire the splenic baseline. After 2 to 3 d, angiography and splenic embolization were performed. A second computed tomography scan was made to confirm the embolization area after 2 to 3 wk of embolization. The blood parameters of patients were also examined biweekly during the 1 year follow-up period.RESULTS: According to the computed tomography images after partial splenic embolization, we divided all patients into two groups: low (< 30%), and high ($\geq 30\%$) embolization area groups. The platelet values were increased by 3 times compared to baseline levels after 2 wk of embolization in high embolization area group. In addition, there were significant differences in platelet values between low and high embolization area groups. GPT values decreased significantly in all patients after 2 wk of embolization. The improvement in platelet and GPT values still persisted until 1 year after PSE.In addition, 3 of 4 (75%) Child-Pugh grade B patients progressed to grade A after 2 mo of PSE. The complication rate in < 30% and $\ge 30\%$ embolization area groups was 50% and 100%, respectively. CONCLUSION: Partial splenic embolization is an effective method to improve platelet values and GPT values in liver cirrhosis patients with thrombocytopenia and the $\geq 30\%$ embolization area is meaningful for platelet values improvement. The relationship between the complication rate and embolization area needs further studies