

Comparison of Effects of Devascularization versus Shunt on Patients with Portal Hypertension: A Meta-Analysis

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Abstract

Objective: To systematically evaluate the effectiveness of devascularization and shunt on patients with portal hypertension.

Methods: Relevant studies compared devascularization and shunt for the treatment of portal hypertension were identified searching the PubMed, Embase, Elsevier, CNKI (China National Knowledge Infrastructure) database and Cochrane Trial Register searches until December 2013. Data of interest for devascularization and shunt including postoperative recurrent bleeding, postoperative hepatic encephalopathy, ascites, operative mortality rate, and long term survival rate were subjected to meta-analysis.

Results: Eleven studies were included in the study, the results of the meta-analysis showed that all eleven clinical studies demonstrated a significantly higher postoperative recurrent bleeding rate with devascularization group than with shunt group (Odds Ratio =2.14, 95% CI =(1.42, 3.21), P = 0.0003), the rate of hepatic encephalopathy in the devascularization group was significantly lower compared with the shunt group (Odds Ratio =0.56, 95% CI =(0.38, 0.82), P = 0.003); Our meta-analysis of three clinical studies revealed that the reduction of ascites in the devascularization group was significantly less than the shunt groups (Odds Ratio =0.48, 95% CI = (0.26, 0.89), P = 0.02), the operative mortality rate was not significantly different between the devascularization group than for shunt group (Odds Ratio =1.54, 95% CI = (0.91, 2.63), P = 0.11). And the long-term survival rate was not significantly different between the devascularization and shunt groups (Odds=1.13, ratio, 95% CI =(0.64, 1.99), P = 0.68).

Conclusions: Devascularization and shunt have different advantages and disadvantages respectively which reflected in postoperative complications and long term survival rate.

Key words: devascularization, shunt, portal hypertension, meta-analysis

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