Preparation and reconstruction of hepatic artery anatomic variations of donor liver in orthotopic liver transplantation

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Abstract: Objective To investigate the methods of hepatic artery (HA) preparation and reconstruction in donors with HA anatomic variations in orthotopic liver transplantation. Methods A retrospective analysis was applied to find the methods and skills of donor liver and hepatic artery (HA) reconstruction in the 91 cases of orthotopic liver transplantation. Results All allografts prepared were used for liver transplantation. Twenty of 91 (21.9%) allografts had hepatic artery anatomic variations, and reconstructive anastomosis was performed in 12 cases. Splenic artery (7/12) and gastro-duodenal artery (5/12) were used for anastomosis to the variant right hepatic artery. No complications resulted from donor liver preparation postoperatively. Conclusions Correct donor liver preparation and hepatic artery (HA) reconstruction in donors can decrease the incidence of hepatic artery and biliary complications.