

9. Summary

Purpose:

This study was designed to evaluate the role of interventional radiology in liver transplantation programme. The aim is to present our experience, technical outcomes and long-term clinical results with chemoembolization of hepatocellular carcinoma in patients before liver transplantation and with percutaneous treatment of vascular and biliary complication after orthotopic liver transplantation.

Methods:

Twenty five patients (17 men, 8 women, mean age 57.76 years) with HCC were scheduled for TACE prior to liver transplantation from 2008 to 2012. Twenty three procedures were performed, 7 c-TACE in 2008 and 16 DEB TACE in next years.

Thirty patients (13 men, 17 women, mean age 46.4 years) with biliary strictures after liver transplantation without endoscopic access possibility were treated with balloon dilatation and biliary duct drainage from 1996 and 2010.

Twenty patients (13 men, 7 women, mean age 45.25 years) were treated with PTA/stent due to hepatic artery stenosis after liver transplantation between 1996 and 2011. Stents were placed to the hepatic/celiac artery in 16 PTAs, balloon dilatation alone was performed in 7 stenosis due to tortuosity of the vessel.

Results:

Liver transplantation was performed to 20 patients after TACE. Only one patient (4.5 %) was excluded from waiting list due to tumour progression, in 2 patients (10 %) tumour recurrence occurred during the mean follow-up 19.25 months. Complete necrosis of HCC in histopathologic evaluation of explanted liver was achieved in 100 % after DEB TACE with DC Bead 100–300 µm.

Technical success was achieved in 27 patients with biliary strictures (90 %), we experienced two complications (6.3 %). Long-term clinical success, defined as the absence of clinical, laboratory or sonographic signs of stricture recurrence was achieved in 22 patients (73.3 %) for a mean follow-up of 5.8 years. Biliary manometry can be used as objective test of successful treatment.

Technical success was achieved in all patients with hepatic artery stenosis treated with PTA/stent. In all patients, elevated liver enzyme levels improved after treatment. No restenosis was found during a mean follow-up of 42.55 months.

Conclusions:

Percutaneous treatment is a safe method with a high technical success rate and good clinical results in patients in liver transplantation programme.