IS-6  Surgical treatments for patent ductus venosus in children

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Patent ductus venosus (PDV) is rare and presents either as a primary developmental abnormality or secondary to hepatic failure. We have experienced 6 cases of patent ductus venosus (PDV) with collapsed intrahepatic portal branches. All patients showed hypergalactosemia and PDV demonstrated by ultrasonography. Three-dimensional computed tomography showed remarkable communication between the portal vein and the inferior vena cava. Among them, one case had intrahepatic hemangioma and one case (21 y, female) had undergone Kasai's portoenterostomy for biliary atresia. Three patients underwent ligation of PDV, one patient with intrahepatic hemangioma underwent left extralobe lobectomy and the remaining 2 cases underwent banding of PDV under intraoperative portal vein pressure (PVP) monitoring. Intraoperatively, PVP was controlled under 30 cm H2O by PVD ligation or banding. Excellent improvement of the intrahepatic portal vein flow was achieved by ligating or banding of PVD. However, intraportal thrombus was postoperatively complicated in the first case. We have used anticoagulant therapy in the remaining 5 cases after surgery and experienced no postoperative complications. These results suggested that PDV ligation or banding is effective surgical approach for the patients with PDV. After PDV ligation or banding, postoperative intraportal thrombus should be prevented.