LAPAROSCOPIC OPEN KASAI PORTOENTEROSTOMY: OUR EXPERIENCE

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The question of feasibility of laparoscopic Kasai procedure for biliary atresia in infants has been a subject of discussion for a long time, and still remains unsolved.

110 children with different bile duct malformations were operated on in our clinic since 2000. The first laparoscopic Kasai portoenterostomy was performed in January, 2008 to a 2 month old child. Since then, laparoscopic Kasai portoenterostomies were performed in 42 children with biliary atresia. The age of the children varied from 50 days to 3.5 months. The mean weight of the patients was 4693±767g. 24 patients between the years 2000-2008 were operated on by conventional ("open") procedures.

All procedures were performed with 4 to 5 trocars using 3 and 5-mm ports. Excision of the fibrous biliary remnant was performed laparoscopically in all cases. The Roux loop was fashioned outside of the abdominal cavity through the umbilical incision in 23 children, and in 18 infants the Ruox loop was performed laparoscopically. Laparoscopic biliary reconstruction was performed successfully in all patients.

Results: 79% of children who underwent laparoscopic Kasai had a normal postoperative bilirubin level, whereas the other 9 children did not drain bile and required liver transplantation. In the "open" surgery group, 74% of patients had good results. The duration of laparoscopic Kasai procedure was significantly longer than open surgery ($p < 0.05$). There were no conversions. We observed significantly fewer complications (40%) after laparoscopic hepaticojejunostomy than after traditional hepaticojejunoduodenostomy (84.6%, $p < 0.05$). The average length of stay in the ICU, and the duration of analgesia after laparoscopy was significantly lower than after open surgery ($p < 0.05$). Cholangitis was found in 21.4% in the laparoscopic group and 25% in the open surgery group. Intraperitoneal adhesions in patients who underwent liver transplantation were less pronounced after laporoscopy, compared with open Kasai procedure.

Conclusion: Our experience leads us to conclude that laparoscopic Kasai operations can be used as the procedure of choice in the treatment of children with biliary atresia.

PORTAL HYPERTENSION IN CHILDREN: 27 YEARS' EXPERIENCE OF SURGICAL TREATMENT

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Surgical procedures are known to be most effective in preventing variceal bleeding (VB) in children with portal hypertension (PH). The quality of life, possibility of the portosystemic encephalopathy, and the deterioration of liver function after shunt procedures in children with PH are the aim of our study.

Methods. 718 children with PH were treated in our hospital since 1989. 639 (89%) had extrahepatic PH. 577 patients underwent portal systemic shunting (PSS). In 81 children Rex-shunts were performed. In 24 patients Sugiura operations were done.

Endoscopies, Duplex scanning, biochemical tests and psyhoneurological evaluation were performed after a one-year period. 172 patients were evaluated in 5-18 years after surgery to determinate the long-time results.

Results: Re-bleeding occurred in 21 (3,7%) children with PPS. In the long–term period portal perfusion (PP) after PSS decreased down in 84%. No patient developed portal-systemic encephalopathy. No signs of liver function deterioration were found. The re-bleeding rate after Rex-shunt was 5,5%. In patients with Rex-shunt, a normal PP was restored in the early postoperative period. The Sugiura procedure produced the highest rate of re-bleeding – 25%. In 12 patients, we combined the Sugiura procedure with planned endoscopic sclerotherapy in the postoperative period. This decreased re-bleeding to 8,3%.

Conclusions. The PSS is an effective and method of preventing of VB and does not seriously degrade quality of life of the child. The Rex shunt effectively restores PP in the post-operative period. In cases when shunt surgery is not possible, the Sugiura procedure is the operation of choice with endoscopic sclerotherapy for remnant varices.