

EXAMINATION OF THE GALLBLADDER IN THE JAUNDICED NEONATE: A MISSED OPPORTUNITY TO DIAGNOSE BILIARY ATRESIA

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Aim: Improved outcomes of biliary atresia(BA) are strongly associated with earlier Kasai portoenterostomy. BA is also associated with abdominal anomalies such as intestinal atresia, situs inversus and malrotation. We hypothesised that early laparotomies for these congenital conditions may be a missed opportunity to diagnose BA.

Methods: Retrospective case note review of all patients treated for biliary atresia at a single centre between January 1999 to December 2016. Two were excluded as lost to follow-up. The following data was collected: demographics, age at referral, age at Kasai portoenterostomy(KPE), success of KPE, native liver and patient survival. Additional data on findings at laparotomy, duration of parenteral nutrition and trigger for referral were collected from patients who underwent abdominal surgery prior to diagnosis of BA.

Main Results: Two hundred and fifty-one patients were treated. Ten patients underwent prior abdominal surgery(PAS) on median day 3(0-23) prior to referral on day 43(6-137) for suspected BA. Onset of jaundice was noted on day 3 of life(0-21). Acholic stools were noted on day 21(2-52,n=6). In four patients no comment was made on examination of the gallbladder at laparotomy. Four patients were noted to have absent gallbladders. Only one patient was referred on the basis of findings at laparotomy. Age at KPE was comparable between PAS and other patients (47.5 vs. 51,p=0.84). Native liver survival(NLS) was significantly lower in the PAS group (1.04years vs. 1.9, p=0.03). Mortality was higher in the PAS group (30% vs. 5%).

Conclusion: The presence of neonatal jaundice and an absent gallbladder are indicative of biliary atresia. Examination of the gallbladder at laparotomy is mandatory in the jaundiced neonate and could have allowed earlier detection and surgery for biliary atresia in 80% of this patient cohort. NLS and mortality in patients undergoing PAS was worse than those that did not.

