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INTRODUCTION

Laparoscopic left lateral sectionectomy (L-LLS) has been acknowledged as a growing practice in pediatric living donor liver transplantation (pLDLT) demonstrating comparable results to the laparotomic approach.

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We report a series of mininvasive LLS compared to conventional open approach (O-LLS) for pLDLT performed by a single surgeon .

Donor median age was 34.7 years; median BMI was 23 kg/m². Median operating were similar in the three groups: 481, 492 and 610 minutes for O-LLS, L-LLS and I-LLS respectively (p = 0.12). Only one donor in the L-LLS group required blood transfusion, while blood losses were comparable (median 125, 50 and 250 mL; p =0.47). Six patients (26%) were converted from laparoscopic to open procedure. Hospital stay time was comparable: median 6 days for each groups; p = 0.44). All donors survived the procedure. Overall postoperative morbidity was 11%, 0% and 33%, respectively (p=0,80).

METHOD

From 2002 to 2020, 41 consecutive LS for pLDLT were performed. These included 12 open approach (O-LLS), 23 laparoscopic (L-LLS) and 6 hybrid approach (I-LLS). One combined simultaneous liver and kidney open retrieval was excluded from the analysis. We conducted a retrospective comparative analysis of donor and recipient outcomes. Laparoscopic approach to living donor surgery requires expert surgical skill in performing laparoscopic liver surgery. In this setting, L-LLS is a safe procedure with results comparable to the others approach in terms of donor morbidity and overall recipient's outcome. Advantages on the minimally invasive approach include: better pain control and cosmesis. Our results suggest that the laparoscopic approach can be considered a standard practice when the procedure is performed by a transplant team with strong laparoscopic background.

Laparoscopic vs. laparotomic left lateral sectionectomy in pediatric living donor liver transplantation

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RESULTS

L-LLS procedures required less postoperative analgesia compared to other groups (p= 0.0008). Recipient median age and weight were 24 months and 12 Kg. Main indication to pLDLT was biliary atresia (51%). Recipients survival was 100% in the three groups, while graft survival was 95% in the O-LLS group and 100% in the other two groups. Postoperative complication rates were 47%, 17,6% and 16,6%, respectively (p= 0.11).

CONCLUSIONS

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Operative time



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