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Long-Term Outpatient Management of Pediatric Patients After Liver Transplantation

Authors' Contribution:

Study Design A
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Statistical Analysis C
Data Interpretation D
Manuscript Preparation E
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In this study, we primarily focused on the long-term outpatient management of pediatric patients who received a liver transplant. We discuss some suggestions to improve long-term outcomes for this patient population. Compliance is thought to be a critical issue during follow-up. Adequate transition between pediatric and adult care will smooth the process of maintaining or improving compliance. More research is needed to improve the transition process.

Keywords: Ambulatory Care • Hospitals, Pediatric • Liver Transplantation

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Liver transplantation (LT) has been the most effective treatment for children with end-stage liver disease [1]. With the ongoing development of surgical techniques, pediatric LT cases have accumulated rapidly. Whether these children with long-term survival can have a high quality of life depends on the outpatient management strategy. The strategy includes components such as follow-up, frequency of follow-up, life guidance, and so on.

A key part of outpatient management is compliance with regular follow-up. In order to encourage patients to comply with a follow-up plan, we periodically instruct them about the benefits of regular follow-up. For example, regular follow-up can help in detecting abnormalities in liver function tests (LFTs) and receiving prompt diagnoses and treatment.

LFTs are critical for the long-term management of pediatric patients after LT. Once liver injury is detected, doctors will assess the necessity of readmission. Because distance may make it difficult for patients to have LFTs done in the transplantation hospital, transplant coordinators provide them with more convenient access to the LFTs. Blood samples can be collected in a local hospital and then sent to the transplantation hospital by a special mail service. In addition, an online follow-up system is available by using an intelligent platform, WeChat, and telephone. Thus, patients can get doctors' instructions and provide information more easily. The convenience will enable patients to comply with the follow-up plan.

For a patient's specific follow-up plan, coordinators will first confirm the immunosuppressive regimen and then undertake any necessary testing. Usually, the liver biopsy is regarded as the criterion standard for diagnosis. However, particular attention should be paid to the patients' compliance and self-management ability, especially when they enter adolescence. The pediatric to adult transition is a common event with many particularities, and clinical protocols are needed to guide professionals in this process. Transition is a complex process of high vulnerability for those children [2].

Whether recipients of living donor liver transplantation (LDLT) achieve long-term survival depends on the efficient follow-up, self-management, and good compliance. The transition represents the key point to guarantee those competencies. Transition is an active process that addresses the medical, psychosocial, and educational needs of adolescents as they prepare to move from child-centered to adult-centered health care. Most of the LDLT children in China received the surgery when they were less than 1 year old. Their parents managed medicines and post-LT tests, and the children do not have much concept of self-management. This situation may lead to failure of transition of care into adulthood. As a result, these patients may not be compliant or may even lose their graft.

In the practice of follow-up with our patients, we find that there is a large proportion of adolescents with poor compliance. They delay or forget to take their medication, and they may also fail to visit doctors regularly. These behaviors put them at risk of post-LT complications. In our view, opening a transition clinic would help these patients complete their transition from pediatric patients to adult patients smoothly, with self-management as the ultimate goal.

A fact that must be faced is that "transplantation is a chronic health condition that requires ongoing management that means systemic adherence to medication and hospital visits" [3]. In this case, the parents' participation is critical in whether the transition will be successful or not. The parents will serve as important role in the whole process of transition. It is a big challenge for them how to help their kids enter into the adulthood successfully with the guidance of professional staff.

During the process of transition, medical staff should instruct the parents to join them. The degree of parents' attention will smooth the process. Parents who paid more attention will help to build an enlightened family atmosphere. Thus, their children will finish the transition more easily. Nursing specialists should devote themselves to improving parents' knowledge, including psychological adjustment, health care, dietary needs, and so on.

Many academic problems remain to be resolved in the field of outpatient management. More research needs to be conducted to promote outpatient management of pediatric LDLT patients.

References:

1. Lu YF, He K, Qiu BJ, et al. Sleep quality and health-related quality of life in children who survived for more than 5 years after liver transplantation. *J Dig Dis*. 2020;21(11):668-70
2. Fredericks EM, Lopez MJ. Transition of the adolescent transplant patient to adult care. *Clin Liver Dis (Hoboken)*. 2013;2(5):223-26
3. Rajchert J, Rosa M, Pawłowska J, et al. Follow-up of pediatric liver transplant patients after reaching adulthood. *Ann Transplant*. 2016;21:644-48