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Timeline for Resuming Physical Activities After Renal Transplantation: A Mid West Pediatric Nephrology Consortium Study

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POSTER SESSION C: KIDNEY: PEDIATRICS

management of IS probably contributed to the non occurrence of late PTLD cases. The incidence of rejection was higher when IS was reduced and the association with others viral infections (40%) to positive EBV PCR was relevant in our patients.

CITATION INFORMATION: Metran C., Araujo M., Cardoso R., Araujo G., De Paula T., Cristofani L., Penteado F., Pereira M., Watanabe A. Quantitative Epstein-Barr Virus Viral Load Monitoring in Pediatric Kidney Transplantation *Am J Transplant.* 2019;19(suppl 3).

DISCLOSURES: C. Metran: None. M.E. Araujo: None. R. Cardoso: None. G. Araujo: None. T. De Paula: None. L. Cristofani: None. F. Penteado: None. M.F. Pereira: None. A. Watanabe: None.

Abstract# C244

Timeline for Resuming Physical Activities after Renal Transplantation: A Mid West Pediatric Nephrology Consortium Study.

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Purpose: To assess the practice patterns of the timeline for safely resuming various physical activities after pediatric kidney transplant.

Methods: An anonymous web-based survey was distributed via email to members of the Midwest Pediatric Nephrology Consortium. Questions included 55 different activities grouped in order of increasing intensity. Respondents had to select a time-period post kidney transplant when the patient could safely start participating in each of the activities (Table).

Results: Results of 73 respondents from 34 centers were analyzed. 68 (93%) were practicing pediatric nephrologists and 5 (7%) were transplant coordinators. 58 (79%) had > 5 years experience of caring of children with kidney transplant. Walking (90%) and climbing stairs (70%) were approved activity in the first post transplant month. The activities reported to be safe starting 1-3 months post transplant period were: going to school (71%), jogging (69%), attend social gatherings (64%), hiking (59%), visit movie theaters (53%), swimming (53%), golf (53%) and bicycle riding (52%). For 33 other activities, a clear majority (more than 50%) was not reported in any of the timeline categories. 68% reported that tackle or competitive football was never safe, whereas 73% reported boxing to be an unsafe sport for renal transplant patients. According to 63 (86%) respondents, the primary concern for limiting a particular physical activity was trauma to the allograft. 53 (73%) recommended use of a kidney guard during activities or sports with increased risk of trauma. 42 (57.5%) responded that presence of urinary stoma does not change their recommendation.

Conclusions: There is lack of consensus on the timeline for safely resuming physical activities after a renal transplant and practice patterns differ based on comfort level of the clinician. Further studies are required to establish clinical practice guidelines.

Timeline for Resuming Physical Activities (Response %)							
Activity	0-1 mth	>1-3 mth	>3-6 mth	>6-12 mth	> 12 mth	Never Safe	Not Sure
Walking	90	9	1				
Stair Climbing	70	26	1.3	1.3			1.3
Attending School	10	71	19				
Social Gatherings	14	64	22				
Movie Theaters	21	53	26				
Jogging	15	69	12	1.3	1.3		1.3
Hiking	12	59	22	3			4

Activity	0-1 mth	>1-3 mth	>3-6 mth	>6-12 mth	>12 mth	Never Safe	Not Sure
Bicycle Riding	7	52	33	2.6	1.3	2.6	1.3
Swimming	5.4	53	27	10	1.3		2.6
Golf	14	53	18	4			11
Horseback Riding		32	30	10	11	10	7
Trampoline	16	10	7	4	45	18	
Tackle Football		7	7	8	6	68	4
Boxing		8	6	3	3	73	7

CITATION INFORMATION: Baddi P., Patel H., Janjua H., Kim D., Jain A. Timeline for Resuming Physical Activities after Renal Transplantation: A Mid West Pediatric Nephrology Consortium Study *Am J Transplant.* 2019;19(suppl 3).

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Abstract# C245

Successful Kidney Transplantation in a Small Child with an Atrietic Inferior Vena Cava.

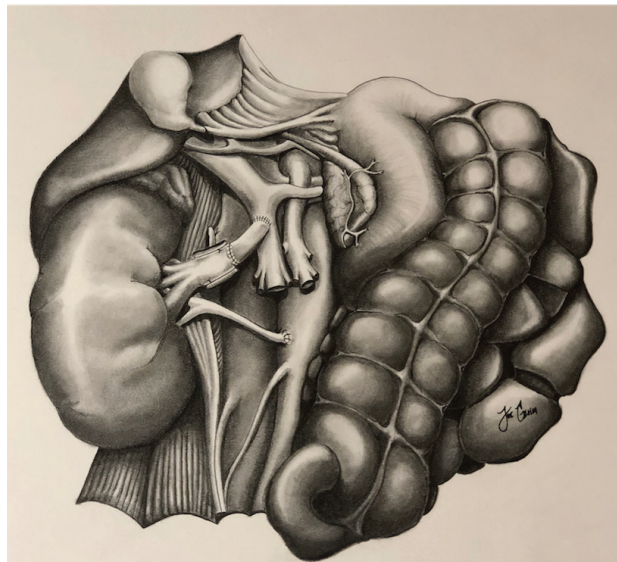
J. A. Geha¹, J. D. Geha¹, M. Goss¹, M. L. Kueht¹, R. T. Cotton¹, J. A. Goss¹, A. Rana¹, C. A. O'Mahony¹, P. Srivaths², E. Brewer², N. N. Galvan¹, ¹Michael E. DeBakey Department of Surgery, Baylor College of Medicine, Houston, TX, ²Department of Pediatrics, Baylor College of Medicine, Houston, TX

Purpose: Kidney transplantation is the treatment of choice in pediatric patients with end stage renal disease. This population presents technical challenges particularly in those less than 20 kgs due to anomalous anatomy, vascular access issues prior to transplantation, and a generally small size for age. Herein, we report a case of a pediatric kidney transplantation where successful allograft outflow was achieved using the superior mesenteric vein (SMV) when he was found to have an atrietic inferior vena cava (IVC) intraoperatively.

Methods: Standard allograft outflow is usually achieved utilizing the iliac veins or IVC. When use of the ilio caval system is not feasible, alternative anastomosis must be considered. In this case, we created a donor iliac graft for added length to anastomose the renal vein with the SMV. The SMV and portal vein were dissected from below the pancreas and exposed. A side-biting vascular clamp was used and the donor Iliac graft was anastomosed to the SMV proximal to the coalescence of the portal vein with the splenic. The iliac vein graft provided sufficient length and was found to be of adequate size in comparison to the donor renal vein [figure1]. Arterial anastomosis was performed in an end-to-side fashion from the renal artery directly to the infrarenal aorta.

Results: In the setting of IVC occlusion with poor drainage, we utilized a patent vessel with larger caliber for outflow to reduce the risk of high venous pressures, allograft failure, venous rotation, and thrombosis. Reperfusion of the allograft was uneventful the second time, with the allograft appearing perfused with excellent color, turgor and pulse along the renal artery. An intraoperative ultrasound confirmed patent renal vessels with adequate flow throughout the vessels, including the renal vein conduit.

Conclusions: We conclude that the SMV may serve as an alternative outflow tract in the small pediatric patient and provides the vessel caliber needed to reduce the risks of complications. This approach has shown to be a safe and effective way to provide sufficient outflow in the setting of IVC occlusion in the pediatric recipient



CITATION INFORMATION: Geha J., Geha J., Goss M., Kueht M., Cotton R., Goss J., Rana A., O'Mahony C., Srivaths P., Brewer E., Galvan N. T. Successful Kidney Transplantation in a Small Child with an Atrietic Inferior Vena Cava *Am J Transplant.* 2019;19(suppl 3).

DISCLOSURES: J.A. Geha: None. J.D. Geha: None. M. Goss: None. M.L. Kueht: None. R.T. Cotton: None. J.A. Goss: None. A. Rana: None. C.A. O'Mahony: None. P. Srivaths: None. E. Brewer: None. N.N. Galvan: None.