

No disclosure

Salwa Al Remeithi <sup>1</sup>, Mohammad Abd Hamad <sup>1</sup>, Mohammed Al Seiri <sup>2</sup>, Mohammad Zaman <sup>1</sup>, Niaz Ahmad <sup>1</sup>

• 1 Department of Surgery, Division of Transplantation, Sheikh Khalifa Medical City, Abu Dhabi, UAE, 2 SEHA Transplant Institute

## Introduction

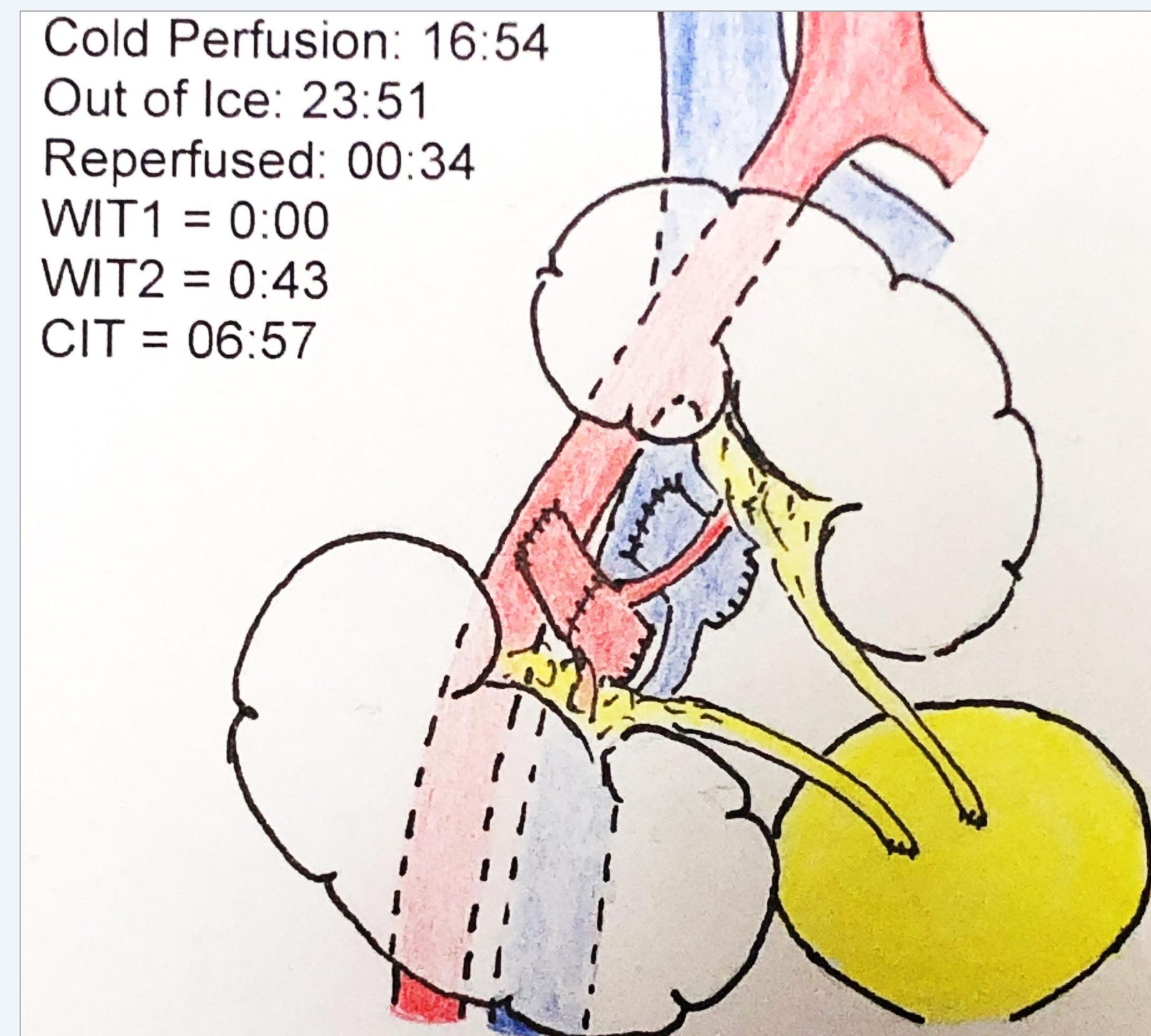
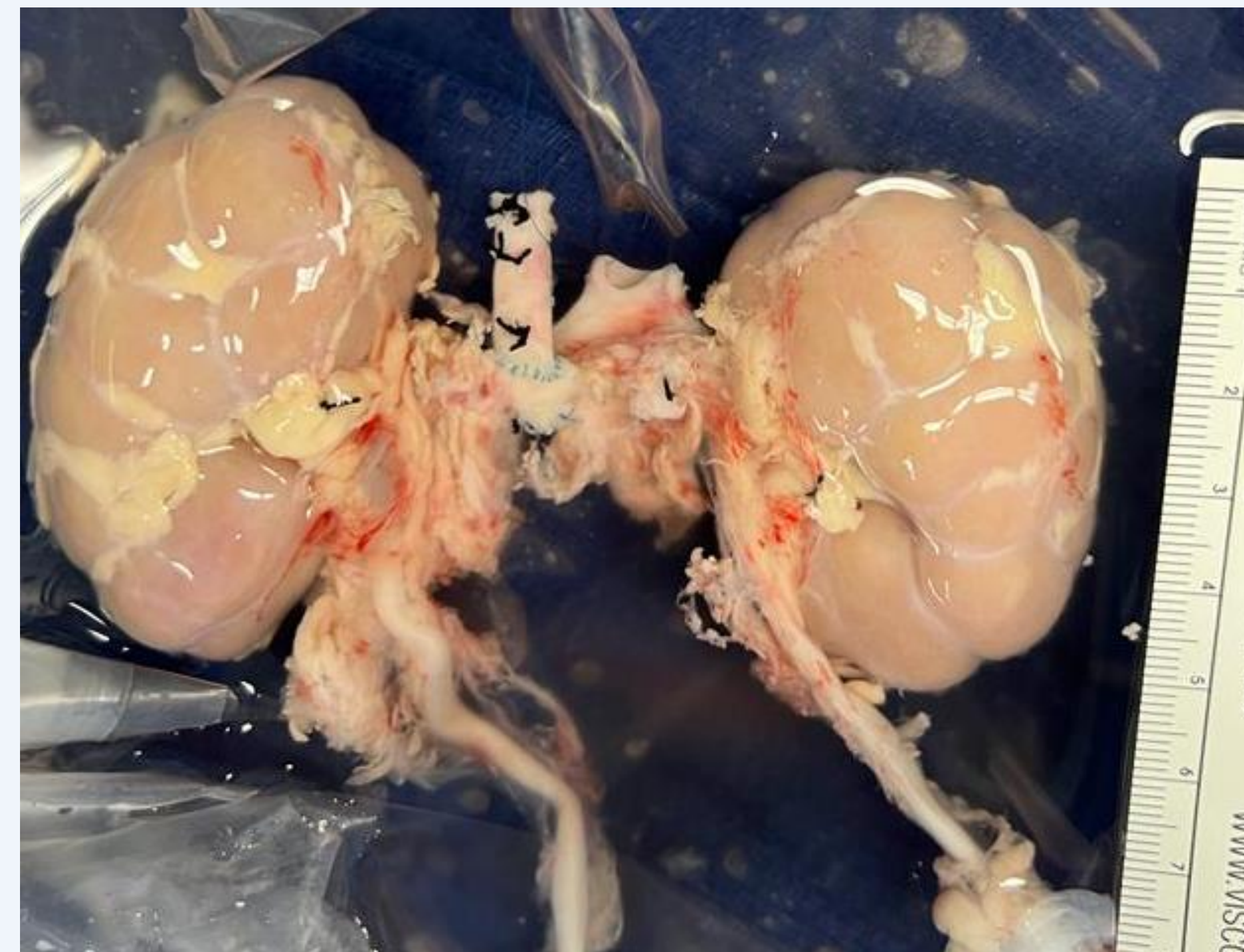
Deceased donor availability is a limiting factor for meeting the demands for kidney transplant. Advanced age and a high Kidney Donor Profile Index (KDPI) predicts an inferior medium-long term graft survival. Kidneys from small paediatric donors, particularly those under two years of age are not widely utilized because of the increased risk of vascular complications and premature graft failure. Meticulous assessment of each deceased donor at these extremes of ages and innovative techniques such as dual and en bloc kidney transplant (DKT and EKT) result in transplanting these kidneys with acceptable outcome and expanding the donor pool.

## Methods

Deceased donor program was started in the United Arab Emirates in 2017 following the approval of deceased donor legislation. After a slow start and then the negative impact of Covid 19, the program is beginning to accelerate. We report our initial experience of DKT and EKT over one year (Dec 2022-Nov 2023) utilizing donor kidneys that were declined by multiple centres.

## Results

Five patients underwent kidney transplant from deceased donors that were declined by multiple centres in the UAE, two EKT, three DKT & are described below (table 1). All patients have shown acceptable graft function at a variable follow up periods (2mo-1yr).



## Results

EKT/DKT		Age mo/yr	Sex M/F	Weight Kg	KDPI	S Cr (3 mo-1yr) umol/L	eGFR (3 mo-1yr) ml/min	Basis for EKT/DKT
EKT1	Donor	9 mo	M	4.8	NA	-	-	Technical
	Recipient	32 yr	F	45	-	64*	110*	
EKT2	Donor	10 mo	F	8.5	63%	-	-	Technical
	Recipient	49 yr	F	49	-	71*	86*	
DKT1	Donor	57 yr	M	71	94%	-	-	High KDPI Histology
	Recipient	55 yr	M	78	-	113**	63**	
DKT2	Donor	59 yr	F	60	98%	-	-	High KDPI
	Recipient	60 yr	M	101	-	107**	65**	
DKT3	Donor	48 yr	F	61	80%	-	-	High KDPI Polycystic kidneys
	Recipient	54 yr	M	76	-	158'	42'	

\* Results after 1year, \*\* results after 3months, ' results after 2months

## Conclusion

With careful assessment kidneys from donors at extremes of age & high KDPI can be transplanted into suitable recipients with acceptable outcome. Both kidneys from a single donor are transplanted into one recipient to provide adequate nephron mass (age and KDPI) and to avoid vascular complications (small paediatric donors). In this context, no age or a KDPI value should be regarded as an absolute contraindication to kidney transplant. This is the first report of EKT and DKT in the UAE.

## References

1. Montero N, Redondo-Pachón D, Pérez-Sáez MJ, Crespo M, Cruzado JM, Pascual J. Dual kidney transplantation as a strategy to use expanded criteria donors: a systematic review. *Transpl Int.* 2018 Aug;31(8):838-860. doi: 10.1111/tri.13157. Epub 2018 Apr 24. PMID: 29582474.
2. Mañalich R, Reyes L, Herrera M, Melendi C, Fundora I. Relationship between weight at birth and the number and size of renal glomeruli in humans: a histomorphometric study. *Kidney Int.* 2000 Aug;58(2):770-3. doi: 10.1046/j.1523-1755.2000.00225.x. PMID: 10916101.

