

# Comparative study of outcome between deceased donor kidney transplantation using standard criteria vs expanded criteria donors: An experience from a single centre in Sri Lanka.

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# Disclaimer:

There are no conflicts of interest or restrictions related this presentation

# Introduction

- Sri Lanka is a country nestled in the Indian ocean with a population of 22 million.
- There are about 150,000 patients suffering from CKD with nearly 6000 in end stage disease.
- Living donor programme is well established accounting to 90% of the transplants.
- Sri Lanka has introduced a deceased donor programme recently.
- Due to the scarcity of organs, deceased donors that previously would not have been considered optimal was used to obtain kidneys.

# Objective

- **Primary Objective:** To compare the outcomes of transplant recipients who received kidney as standard criteria donors(SCD) vs Expanded criteria donors (ECD)
- **Secondary objective :**
  - Donor characteristics
  - Graft function at one month
  - Graft and patient's survival at one year
  - Overall graft and patient outcomes

# Methodology

- Study period
- No of deceased donor kidneys available
- Discarded kidneys
- No. of kidneys transplanted
- No of recipients
- Standard immunosuppression regime
  - **Induction:** Basiliximab
  - **Maintenance:** Triple therapy
    - Prednisolone
    - Mycophenolate mofetil
    - CNI – tacrolimus/ cyclosporine

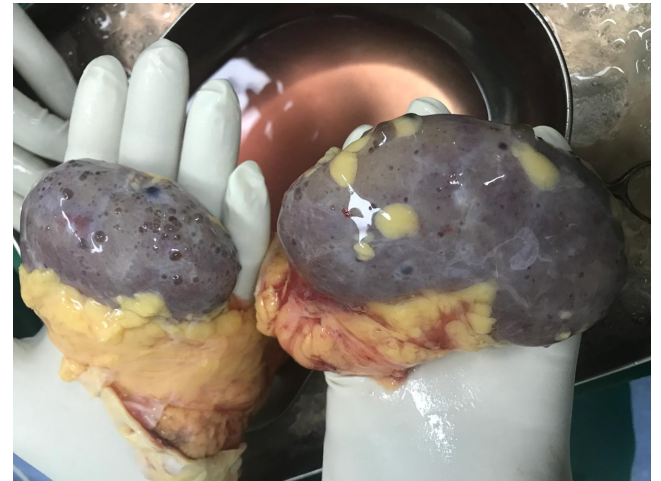
- Oct 2016 to Aug 2023

- 86

- 3

- 83

- 74

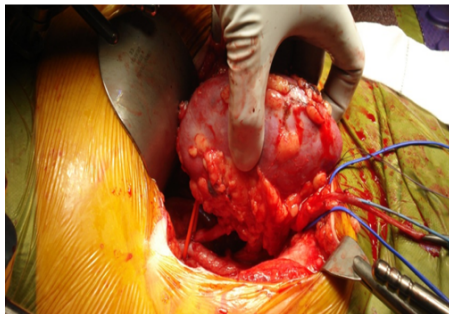


# Using kidneys from two types of deceased donors

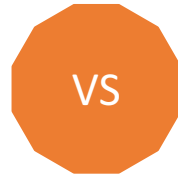
Standard criteria deceased donors



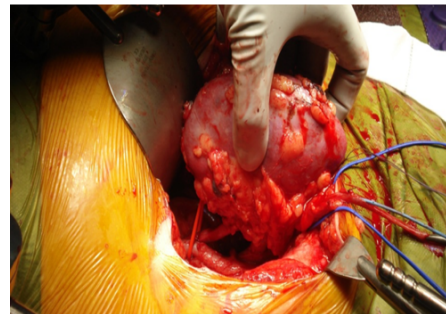
Single implantation



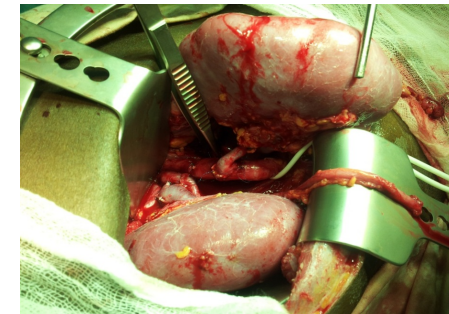
Extended criteria deceased donors



Single implantation



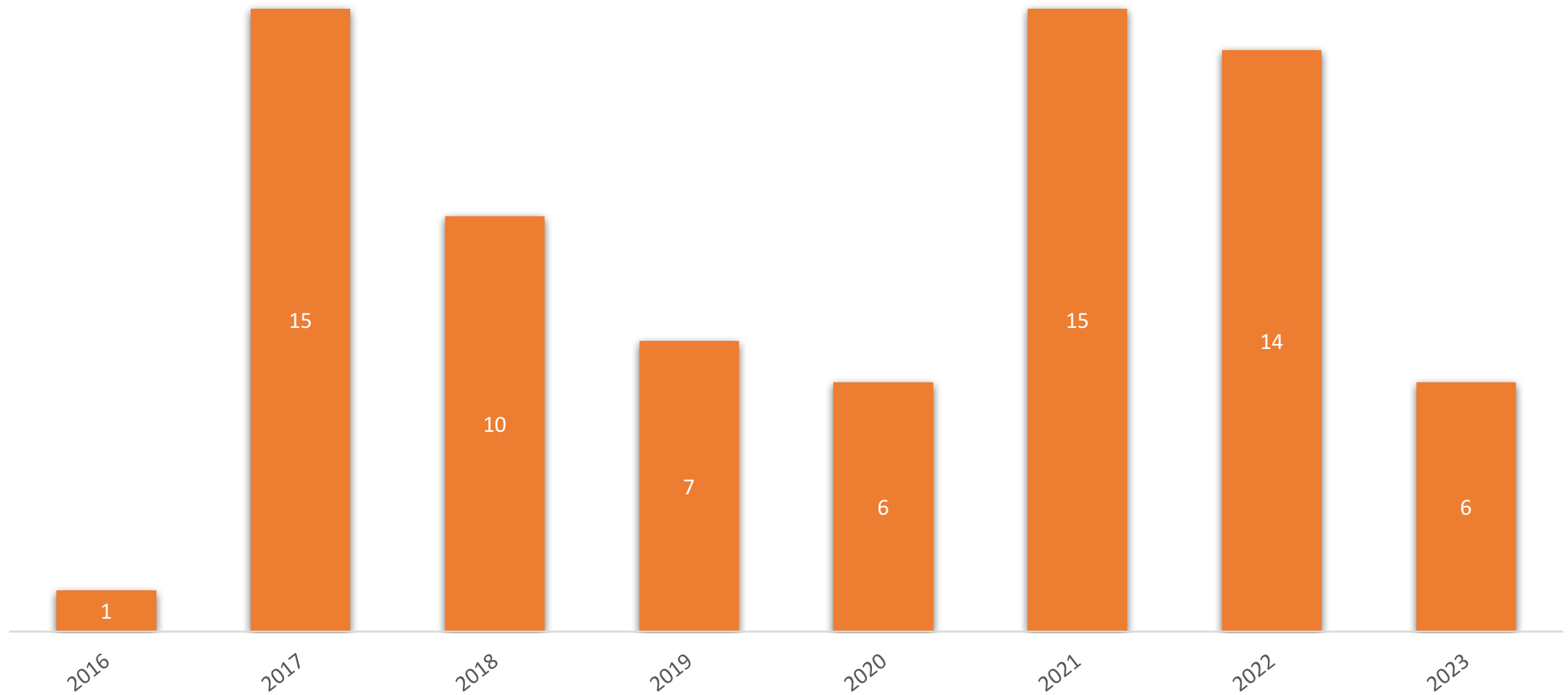
Dual implantation



- Aged > 60  
Age >50 with two of the following criteria:
- history of hypertension
  - serum creatinine >1.5 mg/dl
  - death following a stroke

Based on the macroscopic appearance & creatinine levels decision was made

# Results -deceased donor Kidney transplantation ( n=74)



	Standard criteria donor	Extended criteria donor	P value
Total	47	36	
Mean age	40.03 (17-57)	64.5 (61-68)	0.05
<b><i>Cause of death of the donor</i></b>			
Traumatic head injury	41	25	
Ischemic stroke	3		
Haemorrhagic stroke	1	2	
Hypoxic brain damage	2		
<b><i>Recipient outcome</i></b>			
No of recipients	47	27 ( dual implantation was done in 9)	
Mean eGFR at one month	78.2	77.7	
Delayed graft function	11(23%)	9(33%)	
Overall graft loss (at 7 yrs)	11	5	
One year patient survival	87% (6)	85.1% (4)	0.13
Overall graft survival (mean 33 months)	77%	75%	0.6



# Conclusion

- When carefully selected implantation of ECD-derived kidneys show comparable graft and patient survival when compared to SCD-derived kidneys.
- However, in selected situations it may be necessary to perform dual implantation of ECD kidneys to obtain a better patient outcome in a resource poor setting like Sri Lanka where time zero biopsy facilities are unavailable.
- Therefore, ECD kidneys should not be excluded as potential donors even during early days of an deceased organ donation programme.