Paediatrics Renal transplantation – A single centre 20-year experience and insights on ABO/HLA antibody-incompatible renal transplantation

香港泌尿外科學會
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KNOWLEDGE, SKILLS, AND INNOVATIONS

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Abstract No. PR. 2

Introduction

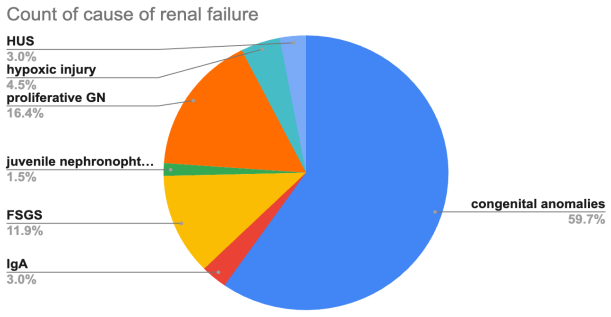
In previous study, we observed an increasing incidence of paediatrics end stage kidney disease in Hong Kong. In this 20-year local review, we describe statistics of paediatrics transplantation taken place in Princess Margaret Hospital and Hong Kong Children Hospital, identify the challenging areas of paediatrics transplantation in Hong Kong.
Possibility of blood group incompatible/ HLA-antibody-incompatible renal transplant in paediatrics patient in Hong Kong will be explored.

Method

A retrospective review of all paediatric recipients (<19 years old) in Princess Margaret Hospital and Hong Kong Children Hospital between 2002 and 2022 was conducted.

Results

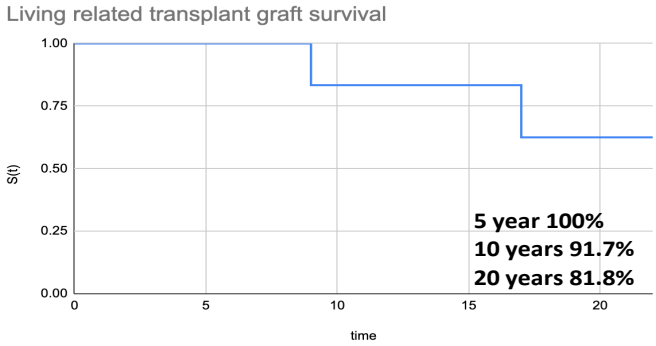
Number of transplant	90
Mean age	12.5 ±4.5 (4.7-18yo)
Number of cadaveric transplant	87.8% (n=79)
Number of living-related transplant	12.2% (n=11)
Number of pre-emptive transplantation	2.2%(n=2)
HLA mismatch (DDT) - O MM - 6 MM - >= 4 MM	 1.6% 20% 73.4%
Median waiting time (DDT)	3.1 years

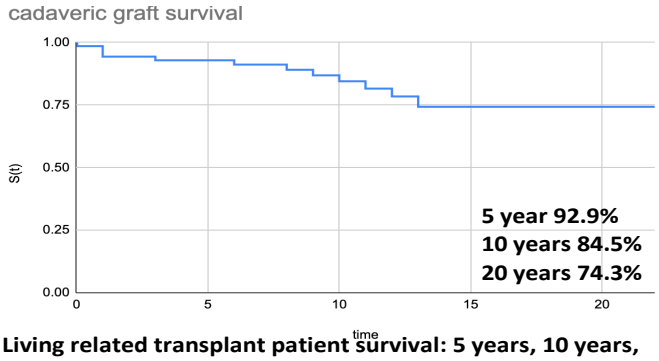


Mean operative time	222 mins (75-1450mins)
Mean blood loss	151 ±129 ml
Mean hospital stay	29 days (10-114 days)
30 days readmission rate	11% (n=10)
Cold ischemic time	10 hours (1.5-24H)
Warm ischemic time	38.4 mins

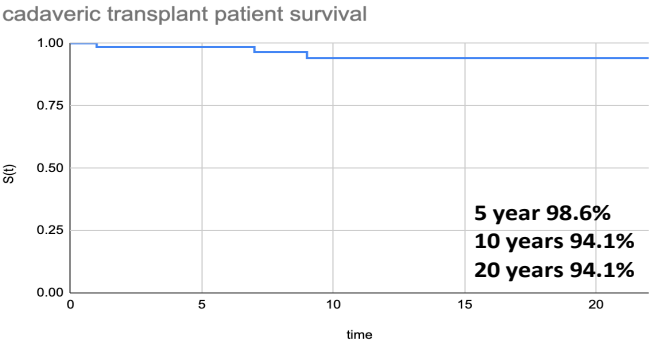
Complication	% (N)
wound infection	6.5%(N=6)
perinephric hematoma	3.2%(N=3)
hematuria	2.2%(N=2)
graft thrombosis	2.2%(N=2)
Anastomotic bleeding	2.2%(N=2)
IVC thrombosis	1.1%(N=1)
lymhocele	3.2%(N=3)

Results





Living related transplant patient survival: 5 years, 10 years, 20 years are 100%.



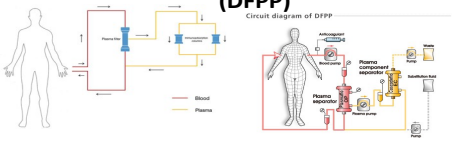
Future

ABO incompatible renal transplant
High HLA activity frequency

IVIG, ATG, Alemtuzumab

Extracorporeal immunoabsorption

Double filtration plasmapheresis (DFPP)



First ABO-incompatible renal transplant in HKCH

Conclusion

the advancement of technology and maturation of transplant skills, many of the recipient were able to benefit from long graft survival and improved quality of life. We believe paediatric HLA-antibody/ABO-incompatible renal transplantation should be considered in selected circumstances.

Reference

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