

# Challenges in selection and screening of Live Kidney Donors, a single-center experience

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# BACKGROUND



- Although living donors represent more than half of the renal transplants performed at our center, there is still a wide gap between the need and availability of transplantable organs.
- During the period 2017-2018, a total of 55 living transplants were done at our center, Netcare Christiaan Barnard Memorial Hospital.

# BACKGROUND, CONTINUE



- An additional 65 living donors were evaluated, screened and excluded at some point during the process.
- Evaluation and screening of living donors have many barriers and we attempted to analyze the reasons for our high exclusion rate.

# METHOD



- A retrospective review was performed for the period January 2017 to December 2018 (2 years).
- Records were drawn and reasons for exclusion were documented.
- Groups were divided into related vs unrelated donors. Male and female split was documented.
- Donor ages ranged from 19-54 years.

# RESULTS



## LIVING KIDNEY DONORS EXCLUDED (65)

|                         |    |
|-------------------------|----|
| Related living donors   | 33 |
| Unrelated living donors | 32 |
| Male                    | 31 |
| Female                  | 34 |

# RESULTS, CONTINUE



## EXCLUDED LIVING KIDNEY DONORS X 65

| Main exclusion criteria       | Out of 65 patients | %      | Male | Female |
|-------------------------------|--------------------|--------|------|--------|
| 1. Obesity BMI $\geq 32$      | 14                 | 21,53% | 4    | 10     |
| 2. Positive cross match       | 13                 | 20%    | 4    | 9      |
| 3. Voluntary donor withdrawal | 9                  | 13.8%  | 6    | 3      |
| 4. Hypertension               | 6                  | 9.23%  | 4    | 2      |

# RESULTS, CONTINUE



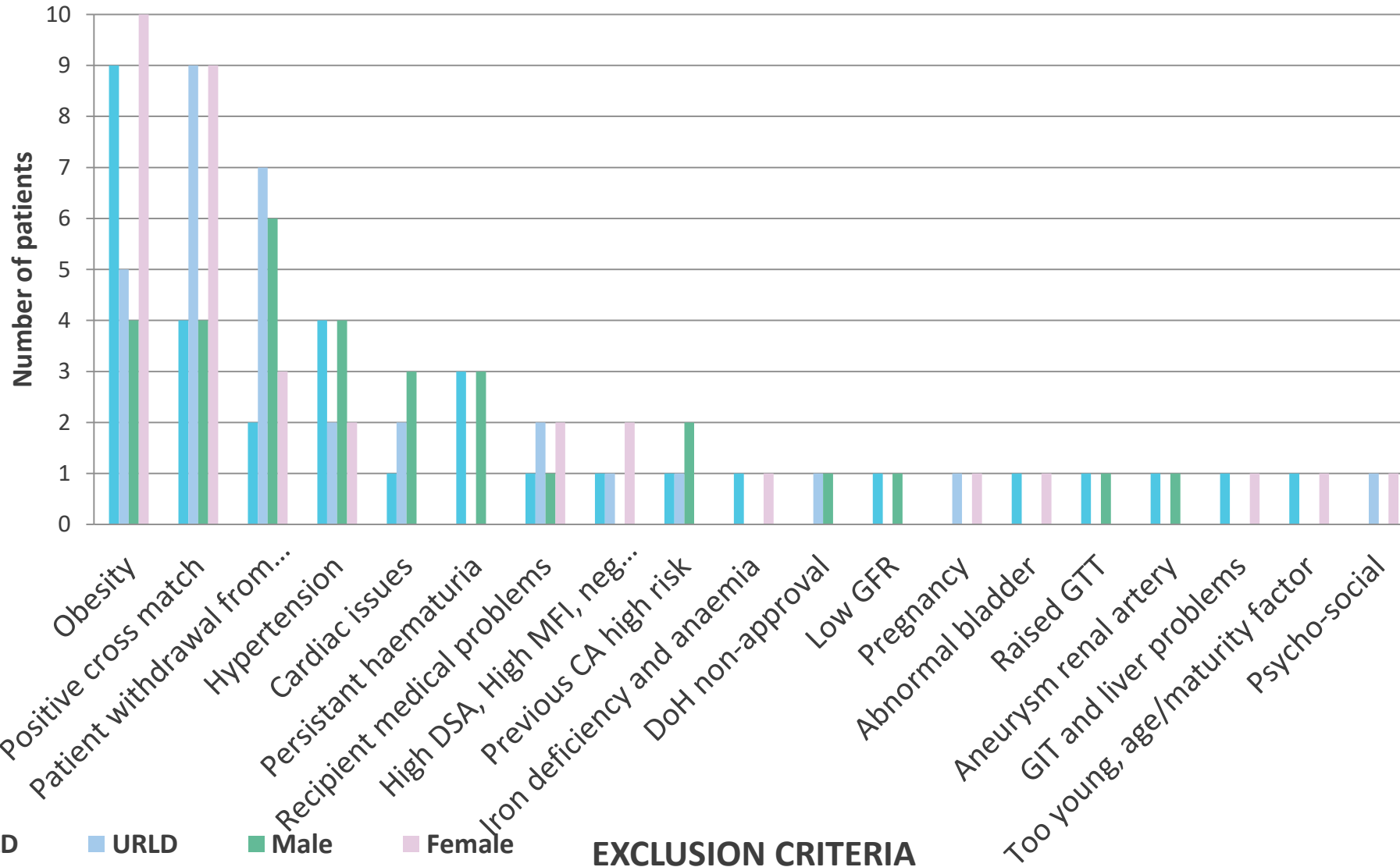
| OTHER EXCLUSION CRITERIA    | NUMBER OF EXCLUDED PATIENTS |
|-----------------------------|-----------------------------|
| 5. Cardiac issues           | 3                           |
| 6. Persistent haematuria    | 3                           |
| 7. Recipient medical issues | 3                           |
| 8. High DSA, High MFI       | 2                           |
| 9. History of carcinoma     | 2                           |

## **MORE EXCLUSION CRITERIA (one patient per exclusion)**

- 10. Iron deficiency anaemia
- 11. Raised GTT
- 12. Renal artery aneurysm
- 13. Low GFR
- 14. GIT and liver problems
- 15. Psycho-social contra-indications
- 16. Pregnancy
- 17. Department of Health non-approval
- 18. Abnormal bladder



# RESULTS, CONTINUE



# CONCLUSION



- Analysis of our living donor pool, excluded for donation, showed that obesity is the leading problem, especially in the female group, followed by positive cross matching, also with a higher incidence in the female group.
- Hypertension and other medical causes were also identified, predominantly in the male group. In the group of voluntary withdrawal, 7 of the 9 were unrelated and withdrew due to psycho-social reasons. The Department of Health rejected one unrelated donor on non-medical grounds that had completed the entire process.
- Psycho-social evaluations identified a fundamental lack of understanding of the process in the early phase, poor family support and high risk behaviors in the younger population.

# REFERENCES



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2. Rodrique J. R., Schold J. D., Mandalbrot D. A. The decline in living kidney donation in the United States: Random variation or cause for concern? Transplantation. 2013 Nov 15; 96(9); 10.1097/TP.0b013e318298fa61. [Accessed 5 August 2019]

Thank you

