# Transplantation of Contaminated Kidneys

The Utility of Perioperative Donor Perfusate Cultures



# BACKGROUND

At our institution, the transport medium is routinely sent for aerobic, anaerobic and fungal cultures.

The purpose of this study is to examine the impact of routine perioperative donor perfusate culture (DPC) of preservation fluid



This was a retrospective study of all kidney transplants at a single institution from January 1 2020 to December 1 2022.

Patients were splint into 2 groups: those who had a DPC drawn (Group A) and those who did not have a DPC drawn (Group B). We also studied those who had a positive DPC and received antibiotics within 48 hours versus those who had a negative DPC

Patient demographics, hospital course/readmissions, and outcomes (1 year) post transplant were all reviewed.

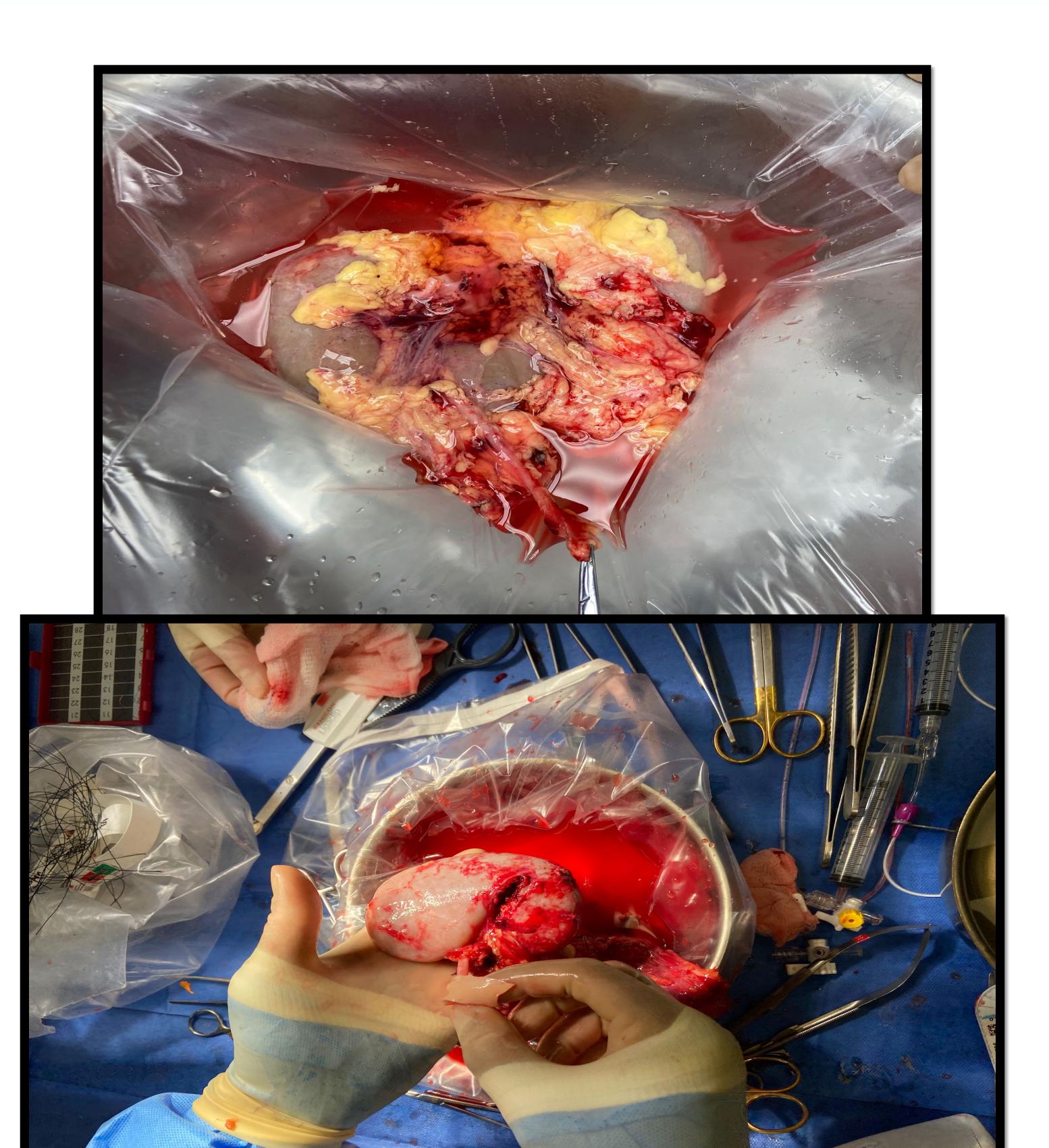


Table 1: Outcomes of recipients when DPC is obtained.

|                         | Group A     | Group B     | p-value |
|-------------------------|-------------|-------------|---------|
| Recipients (n)          | 116         | 155         |         |
| Positive DPC            | 13 (11.2%)  |             |         |
| Antibiotic prophylaxis  | 13 (11.2%)  | 0 (0%)      |         |
| SSI                     | 2 (1.7%)    | 4 (2.5%)    | 0.63    |
| Re-exploration          | 5 (4.3%)    | 3 (1.9%)    | 0.25    |
| 1 year graft survival   | 115 (99.1%) | 152 (98.0%) | 0.46    |
| 1 year patient survival | 115 (99.1%) | 153 (98.7%) | 0.29    |

Table 2: Outcomes of recipients when DPC is positive

|                                      | DPC positive | DPC negative | p-value |
|--------------------------------------|--------------|--------------|---------|
| Recipients (n)                       | 13           | 104          |         |
| SSI                                  | 1 (7.6%)     | 2 (1.9%)     | 0.21    |
| Re-exploration                       | 1 (7.6%)     | 5 (4.8%)     | 0.65    |
| 1 year death censored graft survival | 13 (100%)    | 103 (99.0%)  | 0.72    |
| 1 year patient survival              | 13 (100%)    | 103 (99.0%)  | 0.72    |

#### RESULTS

The following organisms were isolated: Bacteroides, Parabacteroides, Enterococcus, Coagulase Negative Staphylococci, Clostridia, Klebsiella, Lactobacilli, MDR E. coli, Pseudomonas, Proteus, and yeast

Positive DPC was obtained in 11.2% of samples tested and all underwent a course of antibiotics

DPC negative had the least surgical site infections when compared to DPC positive

There was similar graft and patient survival for those who were DPC positive and those who were negative.

## CONCLUSIONS

Donor perfusate cultures helped detect pathogens in 11% of kidney transplants

Potentially contaminated kidneys can be safely transplanted with donor perfusate culture testing and targeted antibiotics

## REFERENCES

Mary Froehlich MDa; Jared Splinter PharmDb, Parwinder Kaur Pharm Db, Shadaba Asad MDb, Sunil Patel MDb; a: Kirk Kerkorian

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