ASTS 8th Annual Fellows Symposium
Kidney Case Studies
Saturday, October 18, 2014

Case #1
Donor: 21 y/o male, 6'2", 220lbs with no significant medical history of concern, but was positive for ETOH, MVA and brain death. Transfused 20 U PRBCs. Serologies unreliable. Underwent ex lap, splenectomy, large pancreatico-duodenal hematoma, packed grade 3 liver lacerations. Creatinine 1.0 → 1.9 → 2.0. Urine output 50-70 hour. Significant hypotension prior to OR.
Now "more stable" on vasopressin and levophed. No interest in extra renal organs. Biopsy: 4%
Glomerulosclerosis, no arteriosclerosis. Anatomy: 3 renal arteries, 1 cut off the patch.
Do you have any suggestions / requests of the donor management team?

- Would you accept these kidneys for somebody on your list?
- Do you want any additional information?
- Reconstruction options?
- Which of your flow negative recipients would you offer this kidney to?
    1) 38 y/o white female 5'8" 150 lbs, on HD x 5yrs
    2) 60 y/o AA male 6'5" 250 lbs, on HD x 4 yrs
    3) 25 y/o Hispanic female 5'4" 170 lbs, on PD x 2 yrs
- What would you say to them when obtaining consent?
- Is this an increased risk donor? How do you define increased risk?
- Any follow up of recipients of increased risk donors

Case #2
Donor: 35 y.o male 5'8" 250 lbs: drug overdose, 30 minutes downtime, CPR, Brain dead. Frequently in jail for using and selling narcotics. Hemodynamically stable on low dose vasopressin. Creatinine 3.0 → 1.5→ 0.9. Urine output 100-150 hour. Serologies negative.

- What additional information do you want from donor management team?
- Would you accept these kidneys for somebody on your list?
- If yes, which of these flow –ve recipients would you offer this to?
    1) 50 y/o male 5'11', 190 lbs.80% pra. On HD x 6 years
    2) 60 y/o female 5'6", 260 lbs. 80% pra. On HD x 5 years
    3) 10 y/o female 5'8" 160 lbs. 0% pra. On PD x 3 years.
- What would you say to them when obtaining consent?

Case #3
Recipient is a 17 y/o male, 5'8" 150 lbs, with history of reflux nephropathy. Transplanted 10 years ago with a living donor from his mom: 40 y/o female donor 5'7", 120 lbs. His allograft has failed from chronic allograft nephropathy and now is on HD via right upper extremity fistula for 3 years. His current PRA is 90%.

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45 year old female brain dead donor from CVA. Creatinine: initial 0.9 → peak 1.3→current 1.0. Biopsy: 3% Glomerulosclerosis, minimal arteriosclerosis. Anatomy: 3 renal arteries.

Would you accept these kidneys for your recipient?

Post operatively his creatinine is slow to decline by POD 6 his creatinine starts to rise and urine output falls.

How would you work this patient up?
Discuss what finding would prompt treatment?

Case #4

A 17 y/o male with a history of D transposition, Blood type O, who has had an arterial switch and bioprosthetic aortic valve replacement as a child who has CKD stage V due to acute renal injury as a baby and recently had another renal insult. He has chronic bronchiectasis from asthma and has been cleared by pulmonary. He also has moderate aortic stenosis.

Is he a candidate for renal transplantation?
What else would you like to know about the recipient evaluation?

He has been found to be a suitable candidate for renal transplantation. The following candidates have presented for living donor evaluation.

1) 48 y/o mom, blood type O, BMI 28, Hep B core positive
2) 24 y/o cousin, blood type AB, BMI 22
3) 25 y/o sister, blood type O, BMI 35
4) 20 y/o brother, blood type O, BMI 28, Hep B core positive

A. Which of these potential living donors would you consider for him?
B. What further evaluation would you perform of the recipient or potential donors?
C. The most suitable donor has a CT scan that demonstrates 3 renal arteries on the left and 1 on the right with single renal veins. Would you use either of these kidneys?

Case #5

Recipient is a 49 y/o white male, 6'2" 225 lbs. DM, HTN. PRA 20%. Transplanted 3 weeks ago with a Donor: 55 y/o Asian male donor 5'7", 150 lbs with a h/o hypertension, previous CVAs. Brain death from CVA. Creatinine: initial 0.9 → peak 1.3→current 1.0. Biopsy: 4%

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Glomerulosclerosis, minimal arteriosclerosis. Anatomy: 2 renal arteries, 2 ureters. Presents to clinic with creatinine of 2.8. Minimal UOP. Kidney had good initial function with a discharge Cr of 1.5. I/S Tac, MMF and pred. Thymo induction.

Do you have additional questions for the patient?

- How would you work this patient up?
- Discuss biopsy finding that would prompt treatment?
- DSA is performed. How is the diagnosis of Antibody Mediated rejection made?
- Treatment of Antibody Mediated rejection?