

# A Renal Patient With Haemolysis: Have We Thought of Everything?

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# Case Presentation

- 23 year old Asian male
- ESRF – Secondary to hypertensive nephrosclerosis
- Peritoneal dialysis 15 months – prior to transplantation
- Live related transplant from his mother

# Case Presentation

- Donor (mother) – HTN
- Good tissue type match
- Prophylactic antibiotics: Co-trimoxazole, Ganciclovir, Isoniazid
- Immunosuppression:
  - Induction: Basiliximab
  - Maintenance: Tacrolimus, prednisolone and azathioprine

# Case Presentation

- POD 4: Creatinine 629 → 295
- POD 5: Biopsy- tubulitis – pulsed with MP
- POD 5: Urinary tract infection : E. coli-  
Meropenem/Ertapenem
- POD 12 - Discharged well

# Case Presentation

- POD 13 - Symptomatic anaemia Hb 7.0g/Dl. Transfused - 3 units
- Haemolysis screen:
  - DAT + IgG & C3d
  - LDH 1364
  - Bilirubin 33
  - Film: Scattered fragments & polychromasia

# Cause of haemolysis ?

- A. Sepsis
- B. Drug induced haemolysis
- C. Passenger lymphocyte syndrome
- D. None of the above

Q. Cause of haemolysis?

A. Passenger

Lymphocyte syndrome

# Case Presentation

- POD 18 : Anti A titers in patients sera





# Which blood group would you use for transfusion?

■ Blood group transfer O Rh +  $\rightarrow$  A Rh +

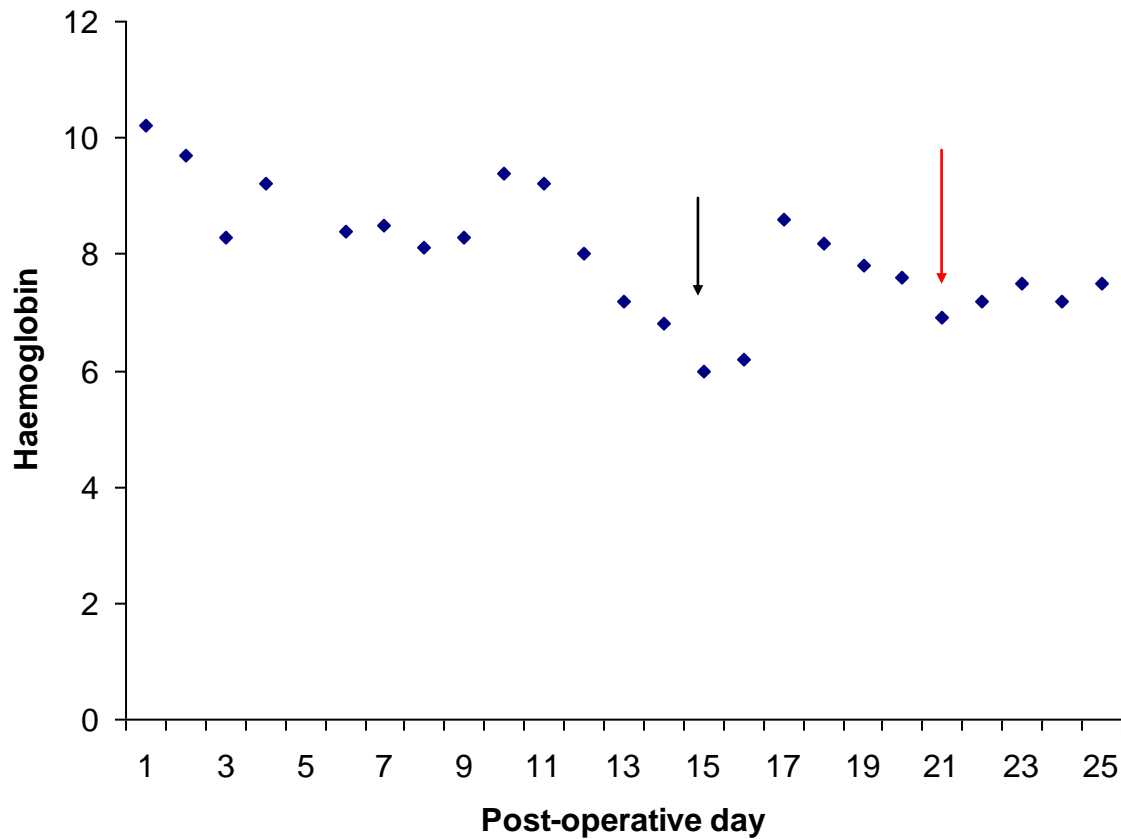
1. A RhD positive
2. B RhD Positive
3. O RhD Positive
4. AB RhD Positive

Q. Blood group

A. O RhD +

# Case Presentation

**Case 1: Haemoglobin trend**



# Passenger Lymphocyte Syndrome

- Immune mediated haemolysis – occurs when there is a minor mismatch in blood group in transplantation.
- E.g O- A/B
- Occurs in both solid organ and bone marrow transplant.
- Incidence in renal transplant 9%.

# Passenger Lymphocyte Syndrome

- Transfer of viable DONOR B-lymphocytes/plasma cells.
- If stimulated - produce antibodies to recipient red blood cell thus causing complement mediated haemolysis.

# Risk factors

- Sensitising events – ie. Blood transfusions/pregnancy
- Blood group O to A transfer
- Cyclosporin
- Secretor status

# Literature review

- 99 cases identified
- 31 Female, 15 Male, 53 n/s
- Aged 9-69
- 12 live, 19 cadaveric, 57 n/s

# Literature review

- Onset of haemolysis range: 5 days - 3 months
- Duration 3-183 Days, 2 cases >170
- DAT 41 IgG (4 cases, C3), 11 cases IgG/M, 1 IgM
- Transfusion support 0 – 23 units
- Outcome generally good. 2 cases- graft failure, 1 death.



Thank you

QUESTIONS?