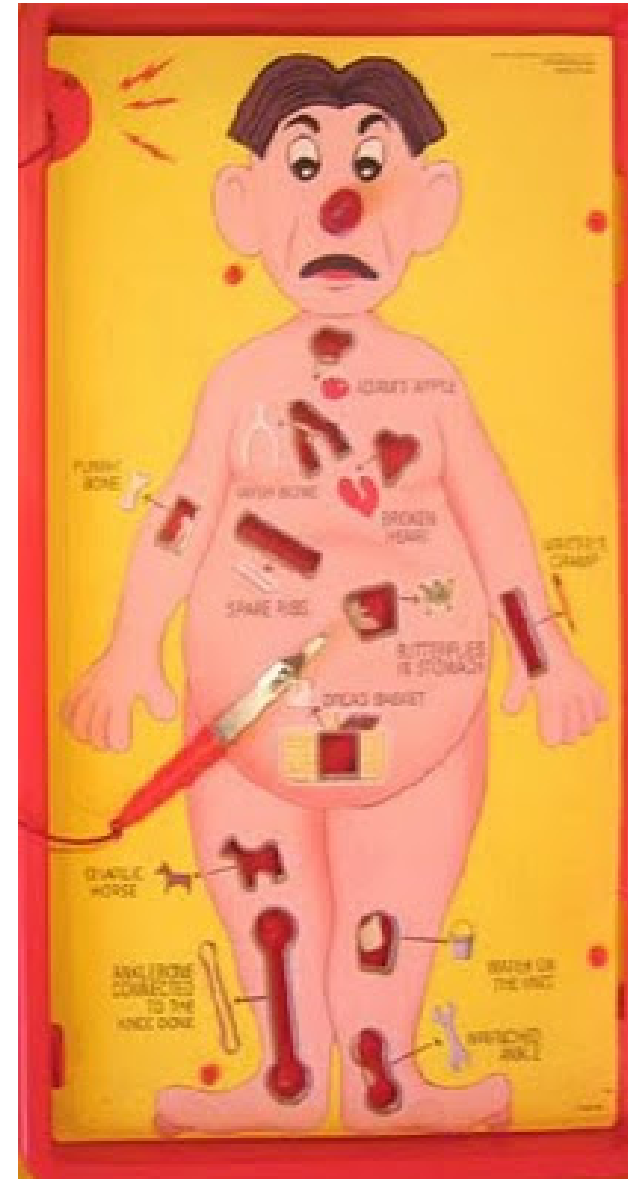


Transfusion support for Solid Organ Transplant

Tom Bullock - NHSBT

On Call Case

- 8 Year old Male
- Group O D pos
- Group A2 heart transplanted in 2014
- Group O kidney transplanted in 2016
- Scheduled for a number of operations which will require component support
 - Liver abscess
 - Bowel resection
 - Stoma formation



Case 1

- The hospital would like to order washed Gp O red cells to be ready for the operation
- In addition, they would like some advice as to what other components to transfuse, should the patient require them.
- What would you give?

Case 1 – Which Red Cells?

- Washed Group O Red Cells
- Washed Group A Red Cells
- Group O Red Cells
- Group O Red Cells (HT Negative)



Case 1 – Red Cells

- Washed Group O Red Cells
- Washed Group A Red Cells
- **Group O Red Cells**
- Group O red cells (HT negative)

Red Cells standard Group O in SAG-M would be suitable, washed RBC not required as quantity of plasma not significant (30mls max)

Case 1 – Which Platelets?

- Group O Apheresis Platelets (HT neg)
- Group O Apheresis Platelets
- Group O Pooled Platelets
- Group A Apheresis Platelets



Case 1 – Platelets

- Group O Apheresis Platelets (HT neg)
- Group O Apheresis Platelets
- Group O Pooled Platelets
- Group A Apheresis Platelets

Platelets group O but negative for high titres of anti-A first choice, group A second choice, AB third choice, B fourth choice. (It is likely that first or second choice will be available)

Pooled platelets in PAS >donors but <plasma

Case 1 – Which Plasma?

- Group O FFP
- Group A FFP
- Group O Octoplas
- Group AB Octoplas



Case 1 – Plasma

- Group O FFP
- Group A FFP
- Group O Octoplas
- Group AB Octoplas

Plasma group O Octoplas (second choice A, third choice AB).

The pool of donors dilutes any with high titres of anti-A

Case 1 – Which Cryoprecipitate?

- Group O Cryo
- Group O MB Cryo
- Group AB MB Cryo
- Group A Cryo



Case 1 – Cryoprecipitate

- Group O Cryo
- Group O MB Cryo
- Group AB MB Cryo
- Group A Cryo

Cryoprecipitate group O pooled MB treated and removed (second choice A third choice AB).
Pooled product less risk of high titre of anti-A,B.

Learning points

- There is little guidance surrounding transfusion support for ABO-incompatible SOT recipients many years post transplant
- Balance of risk of ABO antibodies in components cross-reacting with the transplanted organ
- Accommodation post-SOT is not fully understood
 - Loss / alteration of tissue bound of ABO antigen
 - Immunoglobulin class switching
 - Anti-transferase antibody production
 - A₂ heart expresses less A antigen < rejection

Thank you for taking part!

Questions.....

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