



Summary Patient based Cases EPT 2017

Patient based case 2017-01

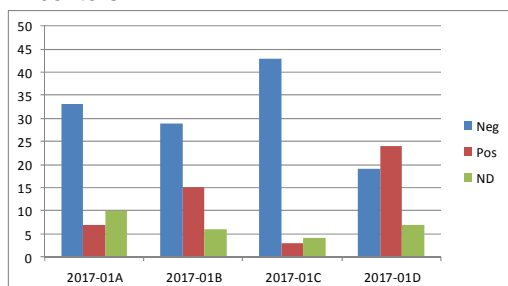
50 centers sent their answer, of which 5 non-ET centers.

Each separate recipient-donor combination is analysed as follows:

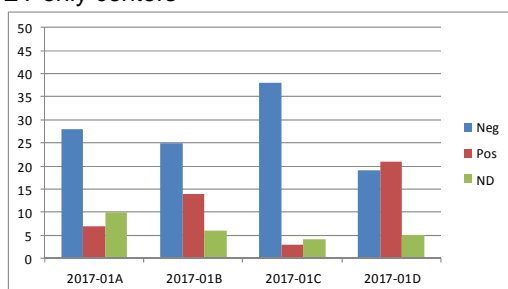
- 1) Final cross match result: Pos, Neg or ND (Not defined; for answers that gave explanations for both a positive and a negative final decision). This is all depicted in graphs.
- 2) Motivation, a summary of answers in favour of a positive or negative final decision.
- 3) Additional information needed for decision making as mentioned by the participants

Final Cross match results:

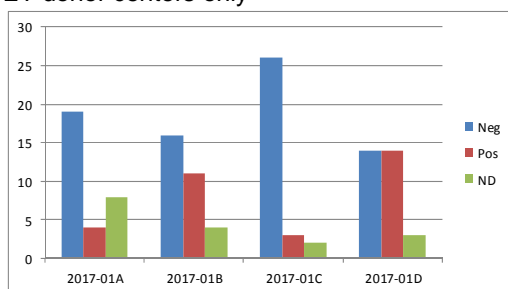
All centers



ET only centers



ET donor centers only



Motivation per recipient donor combination

Recipient Donor Combination 2017-01A

Answer: Final Cross match Positive (7):

Motivation: positive B Cell cross match /sensitization to DR/auto cross match unknown

Answer: Final Cross Match Negative (33):

Motivation: no unacceptable antigens in donor phenotype/ cross match on unseparated cells is negative/ positive B-Cell cross match no contraindication/ B cell cross match might be unspecific



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Recipient Donor Combination 2017-01B

Answer: Final Cross match Positive (15):

Motivation: No auto antibodies/ cross match without DTT is leading/ May have IgM antibodies

Answer: Final Cross Match Negative (29):

Motivation: no unacceptable antigens in donor phenotype/ No auto antibodies/ cross match with DTT negative/ May have IgM Antibodies (no contraindication)

Recipient Donor Combination 2017-01C

Answer: Final Cross match Positive (3):

Motivation: autoantibody positive/ PRA specificities are missing/ negative cross match with DTT

Answer: Final Cross Match Negative (43):

Motivation: autoantibody positive/ CDC with DTT negative/ no unacceptable antigens in donor phenotype/ identical blood group/ possible auto IgM antibodies

Recipient Donor Combination 2017-01D

Answer: Final Cross match Positive (23):

Motivation: B cell cross match positive = contra indication/ presence of combined Class I and II antibodies/ no auto antibodies/ unacceptable antigens DR16; DR3 (because association with DQ5, DQ2)/ positive B cell cross match with DTT in combination with Class II mismatch

Answer: Final Cross Match Negative (21):

Motivation: cross match is negative/ no unacceptable antigens in donor phenotype/ B cell cross match not relevant for allocation

Additional information needed per recipient donor combination:

Recipient Donor Combination 2017-01A

Autologous status (11)

B-cell cross match with DTT/ unseparated Cell cross matches (20)

Antibody specificities (current, historical, CDC, LSA, DP, DQ) (15)

Immunizing events (10)

Medication (Rituximab) (2)

Recipient Donor Combination 2017-01B

Autologous status (8)

B-cell cross match with DTT/ unseparated Cell cross matches (16)

Antibody specificities (current, historical, CDC, LSA, DP, DQ) (13)

Immunizing events (5)

Medication (Rituximab) (1)

Recipient Donor Combination 2017-01C

Autologous status (1)

B-cell cross match with DTT/ unseparated Cell cross matches (10)

Antibody specificities (current, historical, CDC, LSA, DP, DQ) (10)

Immunizing events (8)

Recipient Donor Combination 2017-01D

B-cell cross match with DTT/ unseparated Cell cross matches (2)

Antibody specificities (current, historical, CDC, LSA, DP, DQ) (14)

Immunizing events (11)

Medication (Rituximab) (4)



Summary Patient based Cases EPT 2017

Patient based case 2017-02

All ET centers but one, returned this case
5 non-ET centers returned this case as well

Summary of Immunological Issues

- 1) Unacceptable Antigens

At least 20 of the centers declare these antigens unacceptable:

A3	B12	A1	B60	A9	DR13	Cw3
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10-20 centers declare the following antigens unacceptable:

DR12	DR14	DR7	A30	DR9	DQ5	A29	A11
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- 2) Prozone effect, A1 is detected in CDC but not in SPA SA
- 3) Presence of high level of DP antibodies
- 4) Presence of DRB3 allele specific antibodies
- 5) Presence of DQ6 allele specific antibodies
- 6) (v)PRA, next to the given values, other values are counted. Note counted vPRA discrepant from given vPRA.
- 7) Low chance to find a donor organ
- 8) Was the last failure of the kidney due to immunological causes (it functioned nearly 18 years)?
- 9) Immunization caused by two transplants and blood transfusion
- 10) Patient is young enough to deserve a 3rd kidney
- 11) Discuss compliance of the patient

Summary of additional tests proposed

- 1) High resolution typing of patient; previous donors/donor material; future donors
- 2) DP typing
- 3) Retest SAB after EDTA treatment/dilution
- 4) Perform C1q assay

Summary of suggested possibilities for the patient

- 1) Perform (mandatory) pre-transplant B and T cell cross matches
- 2) Cross match must be negative
- 3) DR12/DR13/DR14 unacceptable antigens
- 4) Enter unacceptable antigens
- 5) Avoid DSA A1, A3, B12
- 6) Exclude unacceptables widely
- 7) Define unacceptable antigens
- 8) Declare DQ6 (and DR52) unacceptable (but then it also should be removed from that patients own typing in ENIS)
- 9) Explantation of 2nd graft accompanied by subsequent plasmapheresis
- 10) Admit the patient to the AM program
- 11) Give induction therapy focussing on B cell immunity
- 12) Type donor for DP
- 13) Organ from living (related) donor (with desensitization) (with DP match)
- 14) Desensitization
- 15) Careful monitoring (including protocol biopsies)
- 16) Flow cross match in case of living donor
- 17) All repeated mismatches should be considered unacceptable antigens

Missing information:

Auto antibody status



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Patient based case 2017-03

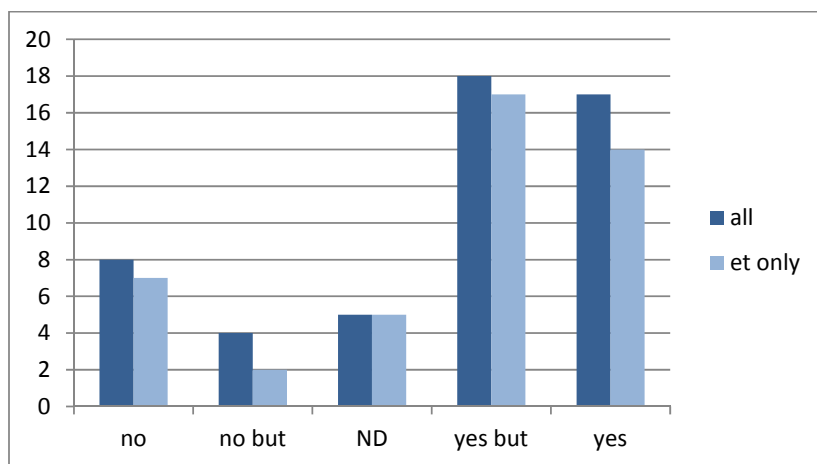
Female recipient 47 years old
Mismatches from pregnancies:
HLA-A2, B5, B51, B53, Bw4, Cw16, DQ2

Mismatches from previous transplant:
HLA-A1, A3, DR5, DR11, DQ6, DQ3, DQ7

Mismatches to actual kidney offer:
HLA-A32, B5, B51, B18, Bw4, Cw5, Cw15, DR17, DR14, DQ2 (DP not known)

Decisions overview:

No	
No but	Only under special conditions
ND	Decision cannot be made, because it depends on extra information that was not available in the case.
Yes but	When additional measurements are taken
Yes	



Motivation

Decision is No:

- Blood group compatible
- CDC cross match without DTT positive, and negative with DTT, not explained by autoantibody status
- Donor specific DQ2 antibody (pregnancy derived)
- DQA1*05:01 Ab detected, (donor is not DQA typed), DQB1*02 increases risk
- Patient has several DP Antibodies
- Shortage of information
- Several mm ag, included in children's HLA type (B51, DQ2)

Decision is No but:

- Additional testing needed/requirements must be fulfilled
- Cross match with DTT does not make sense, Class I, II Abs present; auto cross match negative
- B-cell cross match must be obligatory negative
- Antibody against DQA1*05:01DQB1*02:01
- Many DP antibodies
- Only when acceptable DP/DQA ag and negative B cell cross match, transplantation can be performed
- DR17-DQ2 not defined as acceptable AG



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Decision is ND:

0,058% chance to receive a kidney
 Negative DTT cross match not relevant; autologous status is negative
 CDC cross match with DTT negative
 Depends on B cell cross match
 Only AccAg listed and UnAg not
 Antibody to DQA1*05:01DQB*02:01 (it is likely present on donor organ)
 Depending on results extra consultation and B, T cell cross match , repeated auto cross match
 Reaction towards DR52 allele specific; DR52 on donor organ (immunization?)
 Adjust immunotherapy

Decision is Yes but:

Low chance to get an organ offer
 ABO compatible
 No repeated mm 1st donor
 Recommended post-transplant monitoring
 Repeated mm from children (B51, DQ2) (increased risk)
 With immunological risk
 Cross match negative after DTT treatment (no IgG reactivity against donor)
 2nd (B-cell) cross match has to be done
 Donor has DR3DQ2 haplotype, possibly carrying DQA1*05:01 (recipient is immunized)
 HLA match A, DR, DQ is good
 Possible rejection can be mastered by treatment

Decision is Yes:

ABO compatible, sharing one HLA-A at antigen level and one DR at split level
 Autologous status changed?
 DQ2, DP antibodies, clinical relevance is questionable
 Chances to get a kidney are low
 Cross match with DTT negative, no contraindication for transplantation
 No indication of preformed Antibodies
 No repeated mm from previous transplant
 Not without risk, but low probability to receive a kidney in the AM program
 Recommended post-transplant monitoring to observe DSA and A32 reactivity
 Though poor matching
 Two Ag observed in children: B51, DQ2

Additional info needed:	Answers					
	All	No	No but	ND	Yes but	yes
Cross matches	19	1	4	3	8	3
Additional typing	17	4	3	0	5	5
More antibody information	9	4	1	3	2	1
Info on auto xm	4	0	0	1	1	2
Clinical data	5	0	1	1	2	1