A family of matched parent-child HLA haplotypes: A case study from Bahrain

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*HLA Typing*

Match patient & donors for bone marrow, cord blood or organ transplants
HLA Complex
Relatives of patient
Relatives of patient
Relatives of patient

100% match
Human Identification Test

Mother

Son
Human Identification Test

Mother

Son

[Genetic Profile Diagrams]
Consanguinity
Extended family pedigree
Family Haplotypes

Figure 1
Conclusion
Sickle Cell Disease

- Sickle Cell Carrier
- Sickle Cell Carrier
- Sickle Cell Affected
A test performed to analyze the DNA from oocytes or embryos for HLA-typing or for determining genetic abnormalities.
Sickle Cell Disease

- Sickle Cell Carrier
- Sickle Cell Carrier
- Sickle Cell Affected

Healthy unaffected
HLA match to affected sibling
PGT - M

In vitro fertilization

Remove blastomere from 8-cell embryo (day 3)

IVF

PGT
PGT - M

In vitro fertilization

Remove blastomere from 8-cell embryo (day 3)

Sickle Cell mutation + HLA

PGT
IVF

PGT - M

In vitro fertilization

Remove blastomere from 8-cell embryo (day 3)

Sickle Cell mutation + HLA

Carrier Not match

Affected Match

Normal Match
IVF

In vitro fertilization

Remove blastomere from 8-cell embryo (day 3)

Sickle Cell mutation + HLA

Carrier Not match   Affected Match   Normal Match

Transfer into mother
Acknowledgment

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