

Whites Have Black Twins in In-Vitro Mix-Up Answers

Please refer to:
Bowers, Fergal. "VF mix-up shocks parents."
www.irishhealth.com [Posted: Wed 26/02/2003]

Please refer to:
IVF Muddle: Black Twins Born to White Parents
13 embryo children accidentally destroyed
LEEDS, UK, June 22, 2004 (LifeSiteNews.com)

a) What are all of the possible combinations of parents for the twins?

<u>Mom</u>	<u>Dad</u>
White	Black
Black	White
Black	Black

b) If DNA technology were not available (if it were 1950, or you were in an under-equipped lab) what test would you perform to sort out the identity of the twins parents? Would this test give you a definitive answer? Why/why not?

I would perform a blood type test. The twins might be of blood types that could only be formed by certain combinations of parents but not others. For example, if one of the babies were blood type AB, it could not have a parent of blood type O. However, this test might not give a definitive answer because there might be multiple combinations of potential parents that are compatible with the twins' blood types.

c) What DNA tests could be performed now to determine the identity of the parents? Are these assays more or less likely to give definitive results than the test you proposed above? Why/why not?

You could perform tests using RFLPs (restriction fragment length polymorphisms) or SNPs (single nucleotide polymorphisms). These tests are more likely to be definitive than the blood test because you can test multiple RFLPs and/or SNPs per person and therefore have enough parameters to determine which combination of potential parents is correct.