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Proof of Paternity - The New Test

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Proof of Paternity — The New Test

*by J. Rodney Johnson**

The true identity of a child's father has been the subject of speculation in many a case, literally speaking, as far back as the memory of man runneth. And, the rather obvious social problem giving occasion to this speculation refuses to remain a facet of our moral history. Indeed, if statistics relating to the number of illegitimate births in the United States can be viewed as a valid indicator of the magnitude of this problem of speculative paternity in contemporary times, the problem has never been greater.

According to the Statistical Abstract of the United States, 141,600 of the children born in 1950 (3.9% of the total) were born out of wedlock; in 1955 the percentage increased to 4.5% which represented 183,300 illegitimate children; in 1960 the percentage increased to 5.3% which represented 224,300 illegitimate children; in 1965 the percentage increased to 7.7% which represented 291,200 illegitimate children; in 1970 the percentage increased to 10.7% which represented 398,700 illegitimate children; and in 1975 the percentage increased to 14.2% which represented a total of 447,900 or almost one-half million illegitimate children born that year.[1]

Looking more closely at the home picture, one finds that of the 69,972 children born alive in the Commonwealth of Virginia in 1976, a total of 10,703 (or 15.3%) were born out of wedlock.[2] Moreover, when one integrates these statistics with those relating to adoptions and discovers that of the 3,375 adoptions that were completed in 1976 only 1,393 of the children adopted in that year were classified as born out of wedlock,[3] the rather obvious conclusion to be drawn is that the overwhelming majority of those born illegitimate will so remain.

Paternity Litigation Increases

The problem presented by the increasing number of illegitimate children is exacerbated by the increasing number of instances in which it has become necessary or desirable to determine the paternity of an illegitimate child.

The need to establish paternity may arise in the following contexts: (a) a support proceeding, (b) the right to take property by intestate succession or under a will, (c) divorce on the ground of adultery, (d) annulment on the ground that the female was pregnant by another at the time of marriage or that the male had fathered a child born to another woman within ten months after the marriage, (e) beneficiary under an insurance contract, (f) beneficiary under the wrongful death statute, (g) beneficiary under the workmen's compensation act, (h) beneficiary for purposes of social security, (i) various federal, state, and local welfare matters, (j) etc.

Thus it can be seen that the opportunities for litigation involving disputed

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of illegitimate children by the U.S. Supreme Court,[4] it may be anticipated that this trend will continue.

Evidentiary Problems

The problems associated with the increase in paternity litigation have been further complicated by the almost impossible evidentiary problems associated with attempts to prove paternity in an adversary proceeding.[5] In an attempt to alleviate this evidentiary problem somewhat, the Virginia General Assembly passed legislation in 1966 to allow for the admission of the results of blood tests in divorce or support proceedings where the question of paternity arises.[6] While this statute has been helpful, its potential has not been fully realized because the standard blood grouping test, which is a function of the ABO system of blood typing, (a) is useful only to exclude the possibility of a particular male as the parent of the child in question in only 10-15% of the cases and (b) is not capable of being used as positive evidence to predict the likelihood of paternity in any case.

As late as eighteen months ago, when the American Medical Association and the American Bar Association's Section on Family Law issued an official joint statement in which the present status of blood tests in disputed paternity cases was articulated after a period of five years of study and discussions, it was noted (a) that even when the basis ABO system was combined with the RH system and the MNSs system, the cumulative probability of exclusion of non-fathers was only approximately 55%, and (b) that no satisfactory test as yet existed for predicting the likelihood of paternity when these combined tests failed to exclude the alleged father.[7] However, this official statement noted that even as it was being prepared new developments were taking place which might displace traditional methodology in serologic testing in paternity cases.

The Genetics of HLA Testing

This new development being referred to was occuring as a ''spin-off'' of the research involving organ transplantation where a close genetic matching of donor to donee is mandated if successful results are to be achieved. A tissue typing test being used in the organ transplantation programs known as the HLA (human leukocyte antigen) test was found to be applicable as a test in paternity cases because the HLA groups were determined genetically, i.e. they focused on inheritable characteristics that are passed down from parents to their children.

The term ''HLA'' identifies a genetic region on the chromosome that is divided into an A locus and a B locus. On each of these loci are found two HLA antigen or groups. Thus each person has a maximum of 4 HLA antigens which make up that person's genotype. When a child is conceived, it inherits a

of its parents. The combination of the paternal haplotype and the maternal haplotype provides the 4 HLA antigens found in the child's genotype.

Thus, in a standard case of disputed paternity, the four HLA antigens comprising the child's genotype will be compared with four HLA antigens comprising the mother's genotype and generally it is immediately obvious what the maternal haplotype must consist of. Therefore, the remaining two HLA antigens must form the paternal haplotype. If these two HLA antigens are not found in the putative father's genotype he is positively excluded from paternity.

Most importantly, however, if it is determined that the father's genotype does contain the necessary paternal haplotype it is not necessary to report back the inconclusive finding — ''The alleged father is not excluded from possible paternity.'' Instead a scientific projection of the likelihood of paternity can be made with a high degree of accuracy. This scientific projection is made possible because the World Health Organization officially recognizes 45 different HLA antigens or groups, which may be found together in various arrangements to produce over 50,000 HLA combinations. This means that although from an ABO standpoint virtually all persons are of one of the four common types; from an HLA standpoint virtually all persons are of a rare type in that, on average, only one person in a thousand will have the same HLA genotype. Thus it can be seen intuitively that if a given man's HLA type ''fits'' as the father, his chances of being the real father are 999 out of 1000.

Reliability of HLA Testing

While HLA testing has been used in paternity cases in Europe since 1972, major use of this test in the United States has been awaiting more complete scientific documentation up until this time due to early concens expressed by some in connection with the accuracy of these tests.

Any cloud of uncertainty that may have existed in connection with HLA testing has now been dispelled by a recently released major study by Dr. Paul I. Terasaki, that predicts a complete revision of the evidentiary rules relating to the use of serologic testing in disputed paternity cases.[8] The Terasaki study involved 1,000 consecutive cases that involved 59% Caucasions, 22% Mexican-Americans, 17% Negroes, and 1% others as putative fathers. All of these cases were referred to Dr. Terasaki because the ABO tests performed therein proved to be inconclusive. As a result of the HLA testing process, it was possible to exclude 25% of the putative fathers from the possibility of paternity with complete certainty; 16% had a 99-100% probability of paternity; 15% had a 98-99% probability of paternity; 20% had a 95-98% probability of paternity; and 13% had a 90-95% probability of paternity. The HLA test was inconclusive[9] (less than 90% probability of paternity) in only 10% of all of the cases tested.

The reliability, efficiency, and relatively low costs associated with HLA testing has led one California attorney experienced in paternity litigation to predict that the future may see HLA testing transforming paternity litigation into no more than an administration process. This same attorney reports that ''(s)ince

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October 1976, the Legal Aid society of Orange County and the Orange County District Attorney's Office have utilized the HLA test on a routine basis. To date, twenty-three clients have taken the HLA test. Of these, five were excluded from the probability of paternity; none fell in the 0-90 percent probability category; one fell into the 90-95 percent probability category; and seventeen fell into the 95-100 percent probability category.''[10]

Blood Testing in Virginia Paternity Litigation

The Virginia statute relating to blood testing as evidence of paternity in certain cases is found at § 20-61.2 of the Code, which reads as follows:

> *Admission of results of blood tests in divorce or support proceedings where question of paternity arises.* — In the trial of any divorce or support proceedings in any court in which the question of paternity arises, regardless of any presumptions with respect to paternity, the court before whom the matter may be brought, upon motion of either party, may direct and order that the alleged father, the mother and child shall submit to a blood grouping test; provided, that the court, in its discretion, may require the person requesting the blood grouping test to pay the cost thereof. The results of such blood grouping tests shall be admitted in evidence when offered by a duly licensed practicing physician or other qualified person. (Code 1950, § 8-329.1; 1966, c.517; 1977, c.624.)

The foregoing language is clearly broad enough to encompass HLA testing even though such testing was not specifically in the mind of the legislature when the statute was enacted. Moreover, the wording of the statute, which focuses on ''the results'' of the testing, is also broad enough to admit a prediction of the probability of paternity in the nonexclusion cases. Thus there appears to be no bar to the full use of HLA testing in Virginia at present in divorce cases and support proceedings except the practical problem of finding a qualified laboratory.[11]

For the future, it is sugested that the General Assembly amend the introductory sentence of § 20-61.2, which currently reads ''In the trial of any divorce or support proceedings . . .'', to provide instead that ''in the trial of any matter . . .'' While it may be assumed that there was a good reason for such limitation of serologic testing when the statute was enacted, the present need for reliable evidence in the multiple instances cited above and the present state of the art in serologic testing combine to decry any such good reason today.

FOOTNOTES

1. Table No. 87. Births to Unmarried Women, by Race and Age of Mother: 1950 to 1975, U.S. Department of Commerce, Bureau of the Census.
2. Bureau of Vital Records and Health Statistics, Virginia State Health Department.
3. Virginia State Welfare Department. Note: The number quoted in the text could be slightly higher since classification was not possible in 261 instances in 1976 due to lack of complete information supplied from the local level.
4. The most recent of these cases is Trimble v. Gordon, 430 U.S. 762, 97 S. Ct. 1459 (1977), which contains an account of the Court's decisions in cases involving the rights of illegitimate children in recent years.
5. A discussion of these evidentiary problems in Virginia will be found in *Comment, Blood Grouping Tests and the Presumption of Legitimacy,* 4 University of Richmond Law Review 297 (1970). More recent expressions of the problem can be found in Brown v. Commonwealth *ex rel.* Custis, 218 Va. 40, 235 S.E.2d 325 (1977) and in the fact that legislation was introduced in the 1978 session of the General Assembly to provide for a relaxation of Section 20-61.1(1) of the Code of Virginia.
6. Section 20-61.2 of the Code of Virginia, originally enacted as Section 8-329.1.
7. *Joint AMA-ABA Guidelines: Present Status of Serologic Testing in Problems of Disputed Parentage,* 10 Family Law Quarterly 247 (1976).
8. Terasaki, P. I., et al, *Resolution by HLA Testing of 1000 Paternity Cases Not Excluded by ABO Testing,* to be published in a future issue of the Journal of Family Law. Dr. Terasaki is the Director of the UCLA Department of Surgery Tissue Typing Laboratory which has performed the largest number of HLA tests in paternity cases in the United States. The author wishes to express his grateful appreciation to Dr. Terasaki for consenting to read this article prior to its publication in order to insure its technical accuracy.
9. This is an artificial definition of ''inconclusive'' established by the Orange County, California, District Attorney's Office and the Legal Aid Society of Orange County for purposes of when they would stipulate to a judgment of paternity. Thus it should be recognized that this definition reflects a policy decision and that there is no scientific or intrinsic reason to set the line of demarcation at the 90% level.
10. Lee, T. J., *Paternity: An Administrative Approach,* Clearinghouse Review, Vol. 11, No. 1, page 22 (May 1977). In correspondence received April 14, 1978, Mr. Lee reports that a total of 44 of the Legal Aid Society's clients have now taken the HLA test with the following results: exclusions = 9; 95-100% = 29; 90-95% = 3; 80-90% = 3; and 0-80% = 0.
11. If local facilities are not available, one can obtain kits for blood procurement and mailing from the UCLA Tissue Typing Laboratory, 1000 Veteran Avenue, Los Angeles, California 90024. The current fee for HLA analysis is $375.00.
12. Such legislation will be introduced into the 1979 Session of the General Assembly by Delegate D. Wayne O'Bryan.

Lawyers and Judges IN THE NEWS

Suffolk attorney **Edwin C. Ferguson, Jr.** has been elected president of the Virginia State Chamber of Commerce at its 54th annual membership meeting in Norfolk. Mr. Ferguson is a native of Suffolk and attended Suffolk High School. He received both his bachelor's degree and law degree from