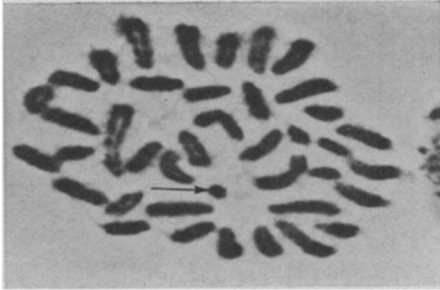


Who Should Bear Children?

by Faye Marley



Jackson Laboratory

Translocation element in mouse cell.

It is little wonder that some women are afraid to have children. They read continuously that it is not desirable to add to the population explosion. Or if that is not a sufficient deterrent, they read the agonizing details of the birth and death of quintuplets.

Added to this, they learn from the National Foundation and the Public Health Service that more than 250,000 babies are born with "significant birth defects" each year.

They search back in their memories for members of their family that weren't quite right. Cousin Willie had a hairlip, and although they know surgery can correct it, they dread the thought of bearing a hairlipped baby.

Worse than this, they have friends with mongoloid babies or babies born with water on the brain. Then a popular magazine recently carried a story about babies born with cat cries. What woman wants to wake up from an anesthetic to the mewing of a cat in her bed?

The cat cry syndrome is the result of missing piece of chromosome 5, and babies who have this abnormality are severely retarded. The mongoloid has an extra chromosome 21.

Apparently normal parents can have such babies, but there is help in genetic counseling.

For more than 20 years in Ann Arbor, Mich., Dr. James V. Neel has been interviewing anxious persons referred to the first Heredity Clinic in the world, which he directs. Maybe it is a physician whose patient wants an abortion because of ungrounded fears of a second mongoloid. Maybe it is an adoption agency that wants to be sure a child is fit for adoption, or more often it is parents themselves with fears that may be without foundation.

Associated with the huge sprawling University of Michigan Hospital, the

Heredity Clinic will soon have brand new quarters to replace its basement rooms. The cost is fully justified by the results of counseling.

Not to be confused with eugenics, which includes sterilization and birth control procedures, genetic counseling aims to tell worried people what is known about genes and chromosomes, and lets them decide for themselves whether they want to take a calculated risk. In many cases the counselor can relieve unnecessary worry.

The answers are not always 100 percent correct, Dr. Neel is quick to say, for the field is a complex one.

"In mongoloidism, for example, two kinds of families are found," he explains. "In one type, the mongoloid baby is strictly an accident. In another, chromosomes are translocated."

Until about 10 years ago it was believed that each human cell contained 48 chromosomes—the bodies within a cell that contain the genes, which are responsible for a child's inheritance of his parents' appearance and traits. Then Dr. J. H. Tjio, a Spanish researcher, discovered that the figure should be 46 instead of 48.

Since then the study of cell production has undergone revolutionary treatment. Everyone, it seems, is jumping on the band wagon. Pictures of chromosomes can be clearly seen in 23 pairs, including the two X chromosomes that determine female sex and the X and Y that show maleness.

If the risk of a defective child warrants it some physicians can test the cells of babies still in the mother's uterus. Dr. Cecil B. Jacobson of the George Washington School of Medicine, Washington, D.C., for example, uses a four-inch hollow needle to insert into the woman's abdomen. By withdrawing amniotic fluid from the sac surrounding the fetus, he studies cells and can establish whether or not the chromosomes are damaged.

Unfortunately, therapeutic abortion in cases of expected mongoloidism is not legal in the United States. Only when the mother's life is endangered can an obstetrician legally perform an abortion.

One condition that affects more Negro children than others is sickle cell anemia. Italians, Turks, Greeks, Sicilians and Asiatic Indians have this abnormality, but it is more prevalent in Africa than in any other country.

In Detroit at the Children's Hospital, some 125 Negro youngsters are being studied by Dr. Charles F. Whitten, himself a Negro on the faculty of the hospital's medical school. His cases run from the age of six months to 18 or 19 years. Many of the boys and girls come into the hospital at intervals when pain, jaundice or anemia require treatment. Otherwise they go to school and except for spindly legs or inability to take part in sports no one would know that a blood test reveals cells shaped like a sickle—a sign of a disease that affects nine percent of the Negroes in the United States and many more in Africa.

"With a half million Negroes in Detroit, I judge roughly 1,000 to be affected by sickle cell anemia," Dr. Whitten says. "Doctors can relieve localized pain . . . but blood transfusions can dilute out the sickle cells and alleviate the anemia."

This treatment is only symptomatic, however, Dr. Whitten says. Sickle cells are rigid and fragile. They produce a condition in the blood vessel that can be obstructive and impede the blood flow. In old people major brain cells can be plugged by the abnormal condition. The death rate among sickle cell anemia patients is higher than for the population as a whole.

As in so many cases of abnormal children, prevention may be the answer.

"We could abolish sickle cell anemia if persons with it did not marry each other," Dr. Whitten says. "If every high school kid (especially Negroes) were tested routinely and told whether or not they have this condition, they could be prepared not to allow themselves to fall in love and marry another person with a similar trait."

This only means that sickle cell anemia patients should not marry each other. No trouble will occur if they marry someone without the disease.

Genetics is comparatively new to the medical school curriculum, and it may be more than a generation before the family doctor can give genetic advice.

But Dr. Victor A. McKusick of Johns Hopkins University, Baltimore, Md., one of the leading genetic counselors in this country, says:

"In due course, genetic counseling can well be incorporated as part of the regular practice of medicine but for some time to come the burden will be assumed by 'specialists' in the subject."