

Could genetic diseases be treated prenatally?

Last week we introduced the reality that our genetic technology is far surpassing our ethical ability to deal with the opportunities now or very shortly available. The Dec. 15 issue of the journal *New Scientist* explores that theme in much greater detail than we can cover here.

It has become somewhat routine for expectant parents who risk giving birth to a severely affected child to seek prenatal diagnosis by any of several widely available techniques. Should such a child be detected, parents face two options: prepare as well as possible for the birth and subsequent care of the offspring or select so-called “therapeutic abortion” — which is definitely not therapeutic for the fetus.

It has sometimes been charged that the geneticist becomes a “handmaiden for the abortionist,” but I assure all that the abortion option is not a pleasant decision or task for anyone involved. It would be far better if we had ways to prevent or cure or reduce the baby’s problems before birth. And some beginning techniques are clearly on the horizon, though it is far from clear when and how we will make the ethical decisions to affect their use.

We’ve been performing bone marrow transplants on adults for 60 years or so. That has proven quite efficacious in treating such things as leukemia or various forms of anemia. We now know that the reason this works is because the marrow contains stem cells which can subsequently differentiate to make all the different blood cells and immune system cells that normally come from that tissue during fetal development and subsequent life. So could this be done prenatally to prevent diseases caused by defective genes in a fetus’ marrow?

View the full article here: [Science and Society: Genetic disease treated prenatally?](#)