Cheap Polio Virus Grown By Use of Human Tissue

A new method of growing polio virus on human rather than monkey tissue—a method which may pave the way toward the easier and cheaper manufacture of vaccine—has been perfected by three University of California researchers.

The three, who report their results in the magazine Science, published today, are Elsa M. Zitcer, Jorgen Fogh and Thelma H. Dunneback, of the university's biochemistry and virus laboratory.

The tissue culture on which they have succeeded in growing the virus of all three major types of polio is made from the cells taken from the so-called "after-birth" of human infants.

Heretofore, polio virus for vaccine has been grown in test tubes on tissue culture from the kidneys of Rhesus monkeys.

The method is not only expensive and subject to a possible limitation of the supply of monkeys from India, but vaccine thus obtained may sensitize some individuals to kidney protein, with some risk of allergic nephritis.

The three Berkeley researchers obtained their tissue culture from the amniotic membrane, the inside lining of the sac that surrounds infants in the uterus.

Scientists believe that such non-organ, human tissues should provide an ideal and cheap method of virus culture, providing a minimum of extraneous matter in the vaccine.

According to the three researchers, one amniotic membrane will yield about as much virus as a single monkey kidney, and, since every baby born supplies one membrane, there never will be a lack of cheap supply.