

THE DEMISE OF ADVANCED MATERNAL AGE

Mark I. Evans, MD

Professor of Obstetrics & Gynecology Director, Institute for Genetics MT.
Sinai School of Medicine New, York, NY
miegene@aol.com

Historically, advanced maternal age, whose definition has been lowered periodically over the past 30 years, has been used to decide which patients are offered prenatal diagnosis by amniocentesis or chorionic villus sampling. However, the "maternal age test" only identifies about 30% of chromosome abnormalities, as the vast majority actually occur to younger women. From such statistics came the concept of biochemical screening of "younger" women to identify who from the low risk group was actually at high risk. Second trimester screening can detect about 65% of abnormalities. The advent of nuchal translucency screening and first trimester biochemistry can raise that detection to about 80-85%. Since a critical component of first trimester screening is accurate measurement of the nuchal translucency, imprecision in its measurements can cause significant errors in risk assessment. The development of a quality assurance program through the Fetal Medicine Foundation has been shown to significantly enhance the accuracy of screening. When performed properly first trimester screening detects a higher proportion of abnormalities for a lower false positive rate than AMA. There is already a major shift in approach occurring in the US and Western Europe towards greater reliance upon first trimester screening as a prelude to invasive testing. We anticipate many fewer women having amniocentesis as those identified in the first trimester will have CVS and those at low risk will have no invasive procedures. There are tremendous cultural changes that need to take effect for maximum effectiveness of such new technologies to be effective.