There are also questions about whether it matters that apoptotic activity in the fetal liver is raised transiently, and there is some difficulty in explaining the mechanisms of damage (whether due to thermal or non thermal effects). However, recent research has advocated Doppler measurement of the cardiac and infracardiac regions of the 11 to 13 + 6–week fetus5,6. There are, however, two other recent animal studies which have demonstrated a relationship between length of exposure to Doppler ultrasound and potentially irreversible biological effects3,4.