First trimester ultrasound: How to perform?

Routine ultrasound examination is an established part of antenatal care if resources are available and access possible. It is offered increasingly during the first trimester (from embryonic cardiac activity up to 13±6 weeks of gestation), particularly in high-resource settings. To achieve optimal results, it is important that they are performed by individuals who fulfill the established criteria utilizing the high-resolution ultrasound and findings documented clearly. The use of B-mode and M-mode prenatal ultrasonography, due to its limited acoustic output, appears to be safe for all stages of pregnancy. Doppler ultrasound is, however, associated with greater energy output with more potential bioeffects and hence, should only be used in the first trimester, if clinically indicated. First trimester scan is best performed when gestational age is between 11 and 13±6 weeks' gestation, as this provides an opportunity to achieve the goals simultaneously, i.e. confirm viability, establish gestational age accurately, determine the number of viable fetuses, chorionicity and evaluate fetal gross anatomy and risk of aneuploidy. It is acknowledged, however, that many gross malformations may develop later in pregnancy or may not be detected. In this workshop, we aim to describe the techniques to achieve the individual goals of the first trimester scan.

Biography

Muzibunnisa Begam is a Consultant Ob-Gyn and a Maternal Fetal Medicine Specialist with more than 20 years of experience in the field of Ob-Gyn. She is a Fellow of Royal College of Obstetricians and Gynecologists (FRCOG) and further sub-specialized in Maternal Fetal Medicine from the United Kingdom. She has published in several internationally renowned journals and her research interests are future complications of cesarean section and prenatal manifestation of autosomal recessive diseases prevailing in United Arab Emirates.

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