

Advances in Imaging in Prenatal Diagnosis and Fetal Therapy

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Abstract

Technological advances in ultrasound have contributed to improvements in prenatal diagnosis. Transvaginal scanning and harmonic imaging have allowed better resolution and improved structural characterisation. Doppler techniques have further been improved, which allow accurate flow studies of vessels in the placenta and fetus. These have contributed much to the management of intrauterine growth restriction, fetal anaemia and twin-twin transfusion syndrome (TTTS). Three-dimensional sonography and magnetic resonance imaging ultrafast sequences are useful adjuncts to conventional 2-dimensional sonography, increasing the confidence and diagnostic accuracy of prenatal diagnosis. Fetal therapy has seen major advances in recent years as well, secondary to improvements in endoscopic instruments and surgical techniques. Selective Nd:YAG laser photocoagulation of communicating vessels and cord occlusion have been used to treat complications of monochorionic twins like TTTS and twin-reversed arterial perfusion sequence.

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