Non-Invasive Cardiac Imaging: the challenge of resource management for an efficient diagnostic workup in the era of new emerging techniques

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Cardiac Imaging Units (CIUs) encompass today conventional techniques, such as Echocardiography (ECHO), together with other recently appeared methods with proven advantages for cardiac applications, as Magnetic Resonance (CMR) or Multidetector Computed Tomography (CCT).

ECHO is an omnipresent technique in the vast majority of patients due to its availability, low cost, and the large amount of useful information that provides. The actual value of ECHO, however, is largely dependent on the skill of the operator (cardiologist and technologist) and, also, limited by physical constraints of ultrasound, as the reduced field of view, or interferences due to non-cardiac structures. CMR, appeared later in time, does not face with these limitations and, in addition, provides with new important information, as is that on the tissue components of heart muscle. Finally, CCT, the most recently introduced technique, has made available a true non-invasive coronary angiography, which is the optimal complement to the other techniques.

ECHO, CMR and CCT constitute, thus, indispensable resources in a modern CIU upon which rational diagnostic schemes may be based, allowing to achieve the ideal threefold aim in every patient with heart disease: 1) diagnostic accuracy; 2) prognostic stratification; and 3) therapeutic planning.

The diverse nature of these techniques, however, and their different adscription pose a particular challenge of organization to the CIU, which requires the involvement of committed cardiologists, radiologists, and nurses/technologists, who must be specifically trained on this truly new subspecialty in Cardiology/Radiology as is Cardiac Imaging.

Are we meeting couples’ needs following prenatal diagnosis of a fetal abnormality? Findings from prenatal testing: A longitudinal study (PETALS)

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Background: The PeTALS project aims to explore the psychosocial impact of prenatal diagnosis and identify professional and social supports that are utilized and needed.

Method: A longitudinal case study approach is being used at 3 Victorian sites to collect questionnaire and qualitative data from women and men at 3 different time-points – 6 weeks post definitive diagnosis of fetal abnormality, 6-9 months later, and 2 years post-diagnosis.

Results: Over 90 individuals have been interviewed at the first time-point, regarding their experience of receiving a prenatal diagnosis. Parents commonly experienced significant grief and overwhelming sadness; many described intense feelings of isolation. Those choosing to have an abortion frequently described feeling negatively 'judged'. Access to abortion, levels of support and the perceived quality of support varied both within and across the sites.

Conclusions: Following prenatal diagnosis, women and men describe variable and sometimes inadequate levels of follow-up bereavement care and support. The expanding scope of prenatal testing means couples are increasingly faced with complex choices. Providing prenatal testing in the absence of a full range of supportive options may be considered unethical.