



## EDITORIAL

# NEW TECHNOLOGIES, MANAGEMENT GUIDES AND THEIR APPLICATION IN MODERN OBSTETRICS: THE EXAMPLE OF INTRAUTERINE GROWTH RESTRICTION (IUGR)

**P**erinatal medicine has evolved significantly during the last 25 years; however, poor results have been obtained regarding topics such as premature birth compared to the economic, technological and human efforts being made. In the field of abnormal foetal growth, generalising the use of ultrasound-derived technological media have irreversibly revolutionised the clinical course of a disease which, until 2 decades ago, was subjectively and indirectly evaluated by means of measuring uterine index or ponderal gain and post-natal or post-mortem confirmation, having minimum knowledge related to natural history.<sup>1</sup> In fact, there is no consistency between the results of work presented during the 1980s and that currently obtained referring to fetuses having abnormal growth. This gives the impression that one will be talking about two different entities.

Problems such as placental aneuploidy, insufficiency and infections were grouped together in the same category at this time; the sequence of adaptive changes associated with hypoxia was unknown and the multiple factors associated with the results were not considered jointly. An example of the foregoing can be observed in studies which presented umbilical artery Doppler alterations without having ruled out fetuses having foetal cardiopathy or diastolic failure or without considering cerebral circulation.

The correct use of ultrasound and colour Doppler imaging in evaluating foetal physiopathological adaptation to different levels of stress and its aetiology has been of great importance for suitably diagnosing the causes of abnormal foetal growth which is currently

based on objective and evolutionary biometric measurement. For example, foetal adaptation is currently established knowing the placental function and the most subtle changes in foetal behaviour, diastolic function and vascular renal, coronary and/or cerebral perfusion. It is also possible to differentiate with great precision which fetuses do not have suitable growth due to genetic or morphological defects, infections or placental compromise. The natural sequence of foetal adaptation to hypoxia in fetuses suffering placental anomaly can also be ascertained. Follow-up in each patient can thus be individualised for choosing the preferable birth time, place and route.<sup>2-4</sup>

Nevertheless, in spite of the enormous advances made in diagnosing and managing intrauterine growth restriction (IUGR) as well as the large amount of publications related to the topic, questions still remain unanswered regarding the best procedures and types of follow-up. Limitations still persist arising from a lack of universality in how the disease is researched and the poor standardisation related to classifying and following-up fetuses suffering IUGR. On the other hand, possible efficient therapeutic options for overcoming or preventing placental insufficiency and other treatments for this entity must be evaluated.

Variable clinical practice and the search for optimising the use of resources for ensuring suitable IUGR diagnosis and management has led to proposing that rational best available evidence-based algorithms be used, particularly when creating public health policy for preventing this disease and its consequences.

The final consensus document entitled, “Diagnosing and managing fetuses suffering from intrauterine growth restriction (IUGR) and fetuses which are small for their gestational age (SGA). Colombian consensus”, is presented in this issue of the *Revista Colombiana de Obstetricia y Ginecología*. It attempts to clarify and homogenise applying and evaluating new technologies for studying fetuses suffering IUGR in current practice in Colombian. Doubts arose in February 2007 during a meeting between the authors of this editorial and Dr. Ahmed Baschat’s group in San Francisco (USA) which then led to 2 years’ work supported by the Colombian Federation of Perinatology (Federación Colombiana de Perinatología - FECOPEN) and Medicina Fetal SA (Medellín) aimed at reaching points of agreement between leading perinatology doctors in Colombia, seeking to talk the same language regarding how to define the entity, facilitate follow-up and define gestational age and route at the end of pregnancy. A national consensus of experts finally managed to agree on points in common and identify those matters for discussion which still remained confused. Methodological, rigorous and systematic work on reviewing the available publications on the topic led to recommendations being made which were evidence-based and in line with our medical setting.

Among the main points identified as being priorities for future research was that of creating foetal growth tables obtained from our population by valid and reliable methods,<sup>5</sup> focused on properly filling out the DANE birth certificate and CLAP (Centro Latinoamericano de Perinatología y Desarrollo Humano CLAP/OPS-OMS) perinatal clinical history data. Another practical consideration for the future was universalising prenatal quality control, thereby optimising reference to levels of complexity based on rational guidelines and protocols.<sup>6</sup> Public health policy should also consider diseases of the foetus as priority concerns for the system since it is currently thought that many of them (i.e. IUGR) are precursors of diseases having great

impact on adults, such as metabolic syndrome and cardiovascular and coronary risk.<sup>7,8</sup>

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