Terms and thresholds for the ultrasound evaluation of the ovaries in women with hyperandrogenic anovulation

Dear Sir,
We enjoyed reading the insightful and informative article by Dewailly et al. (2014) and want to congratulate them for considering and clarifying one of the most contentious subjects in reproductive medicine. Their results are of great value and elegantly demonstrate the need to update the current diagnostic criteria used to describe and define polycystic ovarian syndrome (PCOS). These findings will hopefully lead to a revision of the present criteria and some long overdue changes. Their recommendation to use ≥25 follicles per ovary as suspicion of hyperandrogenemia (HA) should be adopted promptly as it is clear that the former threshold of 12 follicles is obsolete due to the improvement in the resolution of ultrasound achieved through both software and hardware developments (Lujan et al., 2013).

We would, however, like to raise one other issue and one that we passionately believe is no less important than the question of diagnostic criteria and thresholds: the misnomer given to the associated health condition. Whatever the final threshold agreed the ovaries that many sonographers recognize so easily, know so well and are all trying to describe do not contain ‘cysts’ but rather multiple follicles which are arrested in their development: the term ‘polycystic’ is without question misleading. Many women, and indeed some healthcare practitioners, are confused by a diagnosis of ‘polycystic ovaries’: some patients even ask whether there is a need for surgery to physically remove these ‘cysts’ and many of them return for a new ultrasound after the intervention to evaluate whether the cysts had disappeared or not. The ovarian appearance would be better described as ‘multifollicular’, as the only difference is an increase in the number of antral follicles. And PCOS would be better termed ‘hyperandrogenic anovulation’, as this better describes what it is: an endocrine disorder with reproductive features. This term is much more easily explained and understood, causing less harm.

We are not alone on this. The primary recommendation from the first Evidence-Based Methodology Workshop on Polycystic Ovary Syndrome in 2012, sponsored by the National Institutes of Health (NIH) Office for Disease Prevention, was to change the name of the syndrome (Dunaif and Fauser, 2013). They proposed a nosological ‘two-state solution’: those with primarily reproductive concerns should continue to be called PCOS while those with metabolic consequences should have a new name (Dunaif and Fauser, 2013). We agree that the name of the syndrome needs reconsideration, but we think the term ‘polycystic’ in connection with this health condition should be removed. This may seem a step too far but it would add credibly to any new definition and related diagnostic criteria and help healthcare practitioners explain to patients the difference between something evident on ultrasound and a clinical condition with multiple implications. A cross-sectional study, which aimed to determine perceptions held by women and primary healthcare physicians about key clinical features and attitudes toward current and alternative names for the syndrome, showed that among women with this health condition, 47% incorrectly identified ovarian cysts as a key finding, 48% felt the current name was confusing and 51% supported new terminology (Teede et al., 2014).

We also have to be aware that the correct threshold for HA should not have to be the same as the one used for identifying women at risk of an excessive response to controlled ovarian stimulation. It is important that we know these are two different conditions and a much lower threshold should be used to identify the latter: women with a total antral follicle count >20 already have a higher risk of developing ovarian hyperstimulation syndrome (Jayaprakasan et al., 2009; Polyzos et al., 2013).

The last point we want to raise is that many women without hyperandrogenic features and/or anovulation will probably undergo an ultrasound scan of the ovaries for some reason during their reproductive age; some of them will have more than 25 follicles in at least one ovary. What should we do in this situation? Our beliefs were nicely summarized by Dewailly et al. when they say that the meaning of the ultrasound appearance of such ovaries in ‘...asymptomatic general population is unknown at present’. It is time we stood up and made it very clear that we really do not know the clinical consequence of this ultrasound finding and as such should be mindful not to then label someone and more importantly not to label them as having a condition that is factually incorrect namely ‘polycystic’.

To summarize, we wholeheartedly welcome the call to update the current criteria but feel there is an equally important need to change the misnomer given to this enigmatic health condition. Why not do both at the same time?

References


