Polycystic ovarian syndrome: A review

Sir,

The topic of polycystic ovarian syndrome (PCOS) is vast and complex with many gray areas. It is extremely difficult to include all aspects of this condition in an article but we have tried to present as much data as possible. We appreciate the comments made after reading our article and give the following explanations.

1. We agree with the reader that the diagnosis of PCOS in adolescence is indeed difficult. In the proposed diagnostic criteria for PCOS, no particular consideration has been given to the adolescent age group. Menstrual irregularity is common in the early years after menarche and oligo-anovulation may be normal.[1] Clinical hyperandrogenism (HA) may be less common in younger women.[2] Biochemical HA is the most consistent biochemical abnormality in PCOS but there are no widely accepted normal values for adolescents.[3] Further, laboratory assays used to measure testosterone concentrations vary widely between laboratories. Compounding these limitations is the paucity of normative data for testosterone concentrations from population-based studies on adolescents.[4] Ovarian appearance in the early post-menarchal years may differ from that seen in adult women. It is not well defined how a multifollicular appearance may differ from polycystic ovarian (PCO) morphology.[5] We agree that for diagnosing PCOS in an adoloscent, menstrual irregularity lasting for over two years and accurate assessment of hyperandrogenic and metabolic features should be given preference as diagnostic features over the ultrasound detected Overian morphology.

2. It has been mentioned in the article that metformin can be used throughout pregnancy and it is indeed safe. The apparent lack of teratogenicity has earned it an FDA pregnancy category B classification. If a pregnant woman has evidence of virilization then one should think of luteoma of pregnancy as a possible cause. Eruption of acne or hirsutism during lactational amenorrhoea is rarely due to PCOS and one needs to look for other causes. As such, PCOS is a diagnosis of exclusion!
3. The sex hormone-binding globulin (SHBG) levels can be measured in patients with PCOS and are usually low. However, SHBG levels vary according to ethnicity and age. Moreover, the assays for SHBG are not standardized. Measuring SHBG levels in all patients of PCOS is not the current clinical practice. The validity of free androgen index (FAI) as an accurate reflector of free testosterone levels has been questioned and additional data are required to support its use.[6] It has been recommended that free testosterone should be used only in those patients who have signs of hyperandrogenism in the presence of normal levels of testosterone.
4. In a recent systematic review, polymorphism of the androgen receptor gene seems to be a promising biomarker for PCOS because shorter repeats may be linked to the disorder. However, further studies are needed to understand the association fully.[7]
5. Though measurement of carotid artery intima-media thickness is a simple non-invasive test for cardiovascular screening, PCOS occurs in 2nd-3rd decade and unless other risk factors are present, it should not be performed routinely. Even highy specific C-reactive protein (hsCRP) is a good, reliable and clinically practical biomarker for cardiovascular screening in PCOS patients.

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