9th Yazd International Congress and Student Award on Reproductive Medicine with 4th Congress of Reproductive Genetics

Key Lectures

K-47
Anti-müllerian hormone and polycystic ovary syndrome

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Polycystic ovary syndrome (PCOS) is the most common endocrine disorder in reproductive women. The prevalence of PCOS varied based on the recruitment process of the study population, the criteria used for its definition and the method used to define each criterion. Rotterdam criteria introduced in 2004 and included polycystic ovarian morphology (PCOM) as a criterion for PCOS. This definition made a lot of concern in terms of validity and reliability of its assessment and the necessity for revising its definition given using advanced high-resolution ultrasounds devices. Several efforts were made to introduce a more reliable substitute for PCOM, among all candidate options anti-Müllerian hormone (AMH) was the best marker reflecting antral follicular count (AFC) given its exclusive production by granulosa cells of the ovary. Attempt was also made to identify the optimal diagnostic threshold for AMH for substitution of PCOM in PCOS criteria, however, a universally approved threshold has not yet been introduced. Moreover, there are studies that suggested AMH as a surrogate marker for diagnosis of PCOS due to overproduction of AMH by granulosa cells in anovulatory status, cross-communication of AMH with FSH and LH which leads to hyperandrogenism. It seems that the AMH cut-off value of ~5.7 and ~3.7 ng/ml in the early and late reproductive period has adequate sensitivity and specificity for making PCOS diagnosis.