COMPLETE PHENOTYPIC AND METABOLIC PROFILES OF A LARGE CONSECUTIVE COHORT OF UNTREATED KOREAN WOMEN WITH POLYCYSTIC OVARY SYNDROME

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Objective: In this study, we investigated the complete metabolic and phenotypic profiles in a large untreated cohort of Korean women with polycystic ovary syndrome

Methods: From May 2010 to December 2011, consecutive women with PCOS were recruited at 13 centers in Korea using the Rotterdam criteria; three were infertility clinics, and the remaining 10 were tertiary university hospitals. Eight hundred sixty-five women (18-40 years old) with PCOS were recruited using the Rotterdam criteria.

Results: The mean age of the patients was 24.9 (± 6.0) years, and the mean BMI was 22.4 (± 4.1) kg/m², thus the subjects mainly consisted of young and non-obese women. PCO morphology was observed in 96.5% of the patients. Although few women visited hospitals due to hyperandrogenic symptoms alone, hirsutism was observed in one third of the patients (33.9%), and half (47.4%) of the patients had biochemical hyperandrogenism. Prevalence of dyslipidemia, diabetes, hypertension, and metabolic syndrome were 35.7%, 3.5%, 4.0% and 13.7%, respectively. Prevalence of pre-diabetes was 20.8%, and a substantial proportion of additional subjects with normal fasting plasma glucose or oral glucose tolerance tests were identified as having pre-diabetes by hemoglobin A1c testing. Lifestyle change forms the basis of the management of PCOS, but the majority (62.3%) of PCOS patients stated that they were not performing regular exercise at all.

Conclusions
We provided comprehensive metabolic and phenotypic profiles in well-defined Korean women with PCOS. PCOS subjects without HA were found to be relatively more common among Korean women than in other ethnicities; thus, the Rotterdam criteria have enlarged the extent of PCOS substantially in Korean women. Although there is a limitation in that current study had no control group, our cohort is expected to be used to provide better accuracy and more precise estimates of the features related to PCOS in East Asian women.