THEORY OF MIND DEFICITS IN WOMEN WITH POLYCYSTIC OVARY SYNDROME

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Objectives

Polycystic ovary syndrome (PCOS) is the most common endocrinopathy in women. Androgen exposure which is presumed factor in the etiology of PCOS[1] is also related to the theory of mind (ToM) deficits and autistic traits.[2-3] In this study, women with PCOS were compared with the control group in terms of autistic traits and ToM task performance. Also, correlations with markers associated with hyperandro-genism and autistic traits were also analyzed.

Methods

52 women with PCOS diagnosis and age-education matched 52 healthy controls were included in the study. Autism Spectrum Quotient(AQ), the Reading the Mind in the Eyes Test(RMET), Wechsler Adult Intelligence Scale-Revised(WAIS-R) digit span, comprehension, similarities, and digit symbol subscales were applied to all participants. 2D/4D(the second to fourth digit ratio) and Ferriman-Gallwey(FG) score were applied as markers for the evaluation of prenatal and recent hyperandrogenism, respectively.

Table 1
AQ, RMET and FG Scores and Comparison Between Groups

		PCOS (n=52)	Control (n=52)	p value
AQ	mean±SD	19.60±4.96	17.38±5.74	.038* t= 2.102
RMET	median (min.-max.)	24 (10-31)	26 (16-31)	.044* z= -2,014
FG	median (min.-max.)	7 (0-23)	2 (0-9))	<.001* z= -5.444

Results

AQ scores were higher in the PCOS group than controls. Through this result, the RMET scores were lower in the PCOS group. The FG score was higher in the PCOS group (p<.001) (Table 1). There was no significant difference between the WAIS-R subscale scores of the two groups. There was a trend towards significance(p = .07) between the groups in terms of 2D / 4D ratios. The FG score was higher in the PCOS group(p < .001). Also, FG scores were positively related to AQ (Figure 2) and inversely related to RMET (Figure 2) and WAIS-R subtest scores in the PCOS group.

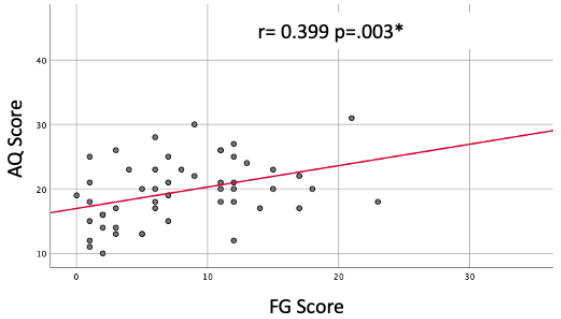


Figure 1. Correlation between AQ and FG score in PCOS group

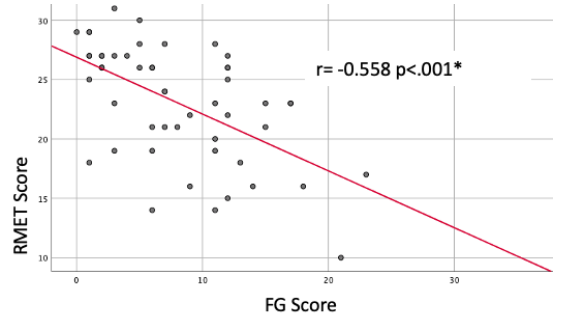


Figure 2. Correlation between RMET and FG score in PCOS group

Conclusions

Autistic traits and ToM deficits were higher in women with PCOS compared to controls. Future studies should investigate relationship between PCOS and autistic traits through present, not prenatal, hyperandrogenism.

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