

P56. Polycystic ovary syndrome as a risk factor for premature ovarian insufficiency: controversial data

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Context: Results of controversial studies between age of menopause and pcos are presented, possible correlation between pcos and premature ovarian insufficiency as well as suggested common mechanisms between the two syndromes

Objective : The objective is to examine if women with polycystic ovary syndrome have a higher probability of premature ovarian failure in their subsequent life and to suggest a possible common mechanism between the two syndromes based on the preexisting studies.

Methods : Literature review.

Patients : All the studies included white race women

Interventions : We analyzed the results of published studies of the last eight years which correlated the age of menopause and the occurrence of PCOS. We search the literature for possible common mechanisms , as immune dysregulations and and common mutations between POI and PCOS

Main outcome measures : There is one nationwide population-based study (Pan ML et al) that reveals prior PCOS is a significant and independent risk factor for development of POI. Contrariwise according to older studies and reviews the reproductive lifespan of PCOS women extends on average 2 years beyond that of normo-ovulatory women (Tehrani FR et al). Ovarian autoantibodies as possible common mechanism between PCOS and POI cannot be confirmed,

as the presence of autoantibodies in PCOs is controversial between different studies and population ,due to the heterogeneity of the syndrome, variety of ovarian antigens as well as antibody tests leading to conflicting results.

A possible common mechanism is the different response to progesterone between the women with PCOS and POI compared to the healthy population ,regarding its non- genomic actions. A swedish study suggests that reduced levels of progesterone receptor membrane component 1

(PRMC 1) in peripheral leukocytes are associated with perturbed ovulatory function, both in PCOS and POI. (Jens Schuster et al).

Result : Polycystic ovary syndrome and premature ovarian insufficiency in the subsequent life could be related. A possible mechanism could include actions mediated by non genomic progesterone receptors as PGRC1 , which was observed to be reduced in both women with PCOS and POI.

Conclusions : Further studies must be carried out to ensure PCOS as a risk factor for primary ovarian insufficiency, as well as to clarify the mechanism of their connection.

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