

Association of maternal polycystic ovary on daughters' health profile

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Background: Polycystic Ovary (PCOD or PCOS) is an endocrine disorder observed among women of reproductive age (15 to 49 years). A girl or woman is said to have PCOS when they exhibit any two of the three criteria such as irregular menstrual cycles or anovulation, hyperandrogenism and polycystic ovaries. Globally, it affects 4 to 20 per cent of women. PCOS is a heterogeneous syndrome without any clear Mendelian pattern of trait inheritance. Still, maternal PCOS is associated with a higher prevalence of reproductive and metabolic abnormalities among daughters. Hence, the study has been taken up with the objective to ascertain the association between maternal PCOS with daughters' health profiles. **Methodology:** The literature search was performed in the databases PubMed, Web of Science, ScienceDirect and Google Scholar. The keywords used were "Maternal PCOS, menstrual cycles or anovulation, hyperandrogenism and polycystic ovaries, and women's health". All relevant articles published in English were for the study.

Results: Studies point strong association between genetics with PCOS. It was observed that there was a familial dysfunction in the beta-cells of the pancreas. This shows association of PCOS and diabetes with increased prevalence of diabetes in PCOS women and their generations. Association between maternal PCOS and risk of developing obesity leads to PCOS among daughters. A higher Waist-Hip-Ratio (>0.87)

was found to be correlated with PCOS, which alters the metabolic and hormonal profile. Maternal PCOS with high BMI translates to the daughter with the risk of developing higher body fat, irregular periods, hyperandrogenism as well as increased hirsutism.

Conclusion: The current review highlights the burden of the syndrome on daughters and further female generations. Hence, early diagnosis, creating awareness to mothers and daughters to lead a healthy lifestyle, prevent the onset and manage to delay the complications must be in consideration when dealing with PCOS.

Biography

Praveena is a graduate in biochemistry and post-graduate in bioinformatics with a short stint in the research at Barcelona Biomedical Research Park, where she was involved in development of kinase protein knowledge base and identifying cancer genes and adds a publication on her work. During her tenure as Scientific Associate in GVK Biosciences Pvt Ltd, she was involved in development of extensive chemical and drug databases and knowledge bases of various proteins. Currently, a freelance nutrition coach handling clients for weight management, lifestyle disorders, and in particular with women health issues. At INFS, she works as a full-time faculty member. Contributed to various courses that include Women's Health and Wellness, Kids Nutrition, Pregnancy and Postpartum, and Clinical Nutrition topics. She has also authored a free e-book on "Myths and Facts". She is currently pursuing international certification in Pre and Post Natal Coach.

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