Polycystic ovary syndrome in a lifetime perspective

Akademisk avhandling
Som för avläggande av medicine doktorsexamen vid Sahlgrenska akademin, Göteborgs universitet kommer att offentligen försvaras i Arvid Carlsson, Medicinaregatan 3, 413 90 Göteborg, den 15 januari 2021, klockan 9.00

av Maria Forslund, leg. läkare

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Avhandlingen baseras på följande delarbeten


V. Forslund M, Schmidt J, Brannstrom M, Landin-Wilhelmsen K, Dahlgren E. No evidence of increased morbidity and mortality in PCOS: A prospective follow-up up to mean age above 80 years. *Manuscript.*
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Abstract

Background: Polycystic ovary syndrome (PCOS) is common, affecting 9-18% of women. PCOS is associated with symptoms due to hyperandrogenism and ovarian dysfunction, but is also associated with the metabolic syndrome including obesity, insulin resistance and elevated blood lipids. The post-menopausal consequences are uncertain, due to the lack of long-term studies.

Aim: To increase the knowledge about ageing women with PCOS.

Material and method: Two cohorts of women with PCOS and their age-matched controls have been followed prospectively: cohort 1 (PCOS n = 33 and controls n = 94) on two occasions, and cohort 2 (PCOS n = 37 and controls n = 120) on three occasions. The women with PCOS from the two cohorts together cover an age range from 20 to 91 years.

Results: Women with PCOS reached the menopause four years later than controls. Parity and nulliparity did not differ. 19% of the women with PCOS had developed type 2 diabetes mellitus (T2DM) at perimenopause, vs. 1% of controls, but all women who developed T2DM were obese and had a high waist hip ratio already at mean age 30 years. Health-related quality of life did not differ at mean age 52 years. Women with PCOS had persistently lower FSH up to a mean age of 81 years, where hirsutism was more frequent (33 vs 4%), but biochemical hyperandrogenism did not differ. Cardiovascular disease (CVD) events, CVD-related or all-cause mortality did not differ at this age.

Conclusion: Women with PCOS did not suffer from increased mortality or increased CVD events, despite increased risk factors. This might be caused by possible protective factors such as a delayed menopause, and hormonal factors that differed from those of the controls at senescence.

Keywords: cardiovascular disease, FSH, hyperandrogenism, insulin resistance, menopause, metabolic syndrome, PCOS, postmenopausal, type 2 diabetes mellitus, quality of life

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