

Abstract

Polycystic ovary syndrome (PCOS) is the commonest reproductive endocrine disorder affecting approximately 5%-10% of women of the reproductive age. Other endocrine disorders that affect the reproductive system include androgen-producing tumours such as tumours of the ovary or the adrenal gland, congenital adrenal hyperplasia, pituitary tumours, Cushing's syndrome and thyroid disorders which are found less frequently than polycystic ovary syndrome in this age group.

Recent research has established that abnormal biochemical characteristics of PCOS may predispose to several conditions with implications for long term serious health problems including diabetes mellitus, hypertension, dyslipidaemia, metabolic syndrome, cardiovascular disease, gestational diabetes mellitus and pregnancy induced hypertension (Franks 1995, Balen 1999).

The study was carried out to assess the prevalence of reproductive endocrine disorders, to describe the health care seeking behaviour and consequences including the effect on quality of life and mental health of women affected with PCOS. It also intended to describe the clinical, biochemical and radiological characteristics of women with PCOS and to identify risk factors and correlates of PCOS.

The study consisted of three components: Component I of the study, validation of WHOQOL-BREF before its application in the main study; component II, community based cross sectional study to assess the prevalence of reproductive endocrine disorders, health care seeking behaviour and consequences of PCOS; component III, a nested case control study to identify correlates and risk factors of PCOS.

This study revealed that irregular menstrual cycles is a common problem affecting 8.1% of women between 15-39 years of age. Among those with undiagnosed oligo/amenorrhea and/or hirsutism in the community survey, PCOS was diagnosed among 6.0 % (95% CI=5.5%-6.5%) utilizing the 2003 Rotterdam diagnostic criteria (Rotterdam Consensus Workshop Group 2003). Thus, the commonest reproductive

endocrine disorder encountered in the community among women of reproductive age in Sri Lanka is the PCOS. In addition polycystic ovaries without menstrual irregularity were observed among 19.1% of the controls.

Only around half (56%) of those with PCOS have sought treatment for the symptom/s. Around 14.2% of cases had taken more than 3 years to seek treatment. Allopathic health care providers were the main category (94.9%) of health care provider visited by cases. Only around one percent (1.3%) sought treatment from a primary health care providers. Treatment which is non specific to PCOS were given to the majority (51.2%) of cases who have sought treatment. The investigations usually indicated when a diagnosis of PCOS is suspected had not been carried out in the majority (61.0%) of the cases.

The true clinical, biochemical and radiological picture for Sri Lankan women with PCOS indicated different phenotypes of PCOS among Sri Lankan women.

The study also revealed that PCOS has long term effects on the metabolic status of these women. These included abdominal obesity and generalized obesity which was twice that of controls. The risk of having triglycerides and LDL levels above normal was two and a half times that of controls. The risk was 2.72 times for hypertension while the risk was 2.14 times for the metabolic syndrome. Thus cases found can be assumed to be at increased risk for cardiovascular disease in the future based on the above risk factors unless steps are taken for prevention.

When stable factors were assessed for the risk of developing PCOS, it was found that the risk was 3.85 times higher among women with a positive family history of irregular menstruation. The risk was 3.29 times higher among women with delayed resumption of regular cycles after menarche while it was 5.10 times among women with pubertal onset excess weight gain.

WHOQOL-BREF was validated among a similar group of cases and controls before its application in the main study. WHOQOL-BREF was found to be a valid and a reliable tool

to assess quality of life of women with PCOS. It showed good convergent validity, discriminant validity and reliability in all domains except the social relationships domain.

The quality of life among cases with respect to their physical health, psychological health and social health was significantly poor among cases. The symptoms typically associated with PCOS such as hirsutism and subfertility were found to cause a significant reduction in quality of life. High prevalence (32.9%) of psychological distress was also found among cases which was significantly higher ($p < 0.001$) than controls.

The problem of menstrual irregularities among women in the reproductive age should be taken seriously and should be referred early for appropriate investigations and treatment thus enabling early detection of PCOS. Greater care should be taken of the metabolic status of women with PCOS from the time of their diagnosis. Women with PCOS are found to have significant psychological distress and poor quality of life in addition to the clinical and biochemical changes. Health education and counseling must be advocated for the multiple physical, psychological and social problems. Public health midwives who are the first contact personnel, need to be made aware of the clinical presentations as well as the importance of early referral of symptomatic women.