Introduction:
Polycystic ovarian syndrome (PCOS) is the commonest endocrinological disorders in women of the reproductive age. It may begin in early puberty and evolves through adolescence into adulthood. Our study is to evaluate the menstrual pattern, clinical and biochemical features of Chinese adolescent girls diagnosed with PCOS.

Method: Our study is a cross-sectional observational study. All Chinese adolescent girls aged 11 to 19 years presented to a Pediatric and Adolescent Gynaecology Clinic for menstrual disorders during January 2006 to December 2010 with the diagnosis of PCOS according to the 2003 Rotterdam consensus were reviewed. Their menstrual pattern, clinical, biochemical and ultrasound features were reviewed.

Results: A total of 100 adolescent girls were diagnosed with PCOS. Their mean age at first consultation was 15.6 years (range 12-19) and the mean age of menarche was 11.9 years (range 8-16). The mean body mass index was 24.7kg/m2 (range 14 to 36.3 kg/m2), in which 23% were obese, and 21% were overweight. Majority of the girls (70%) presented with secondary amenorrhea, 23% with oligomenorrhea and 7% with primary amenorrhea. The mean acne score was 1.21 (range 0-3), while the mean hirsutism score was 5.81 (range 0-23). Overall, 47% of the cases had lutenizing hormone to follicular stimulating hormone ratio greater than 2. One girl was diagnosed with type 2 diabetes mellitus, 6 girls with impaired glucose tolerance, 4 girls with hypertriglyceridemia and 1 had hyperlipidaemia. Polycystic ovaries on ultrasound were found in 33% of the cases. If the new 2012 Rotterdam consensus was used, only 28% of the cases will be diagnosed with PCOS.

Conclusions: Diagnosis of PCOS in adolescents is challenging. Knowing the clinical and biochemical features in adolescent girls with PCOS is important for early diagnosis and prompt treatment. Further study is required to evaluate the optimal diagnostic criteria to prevent over diagnosis.