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## Quality of life in adolescent girls with polycystic ovary syndrome

A study was conducted to examine health-related quality of life (HRQL) in adolescents with polycystic ovary syndrome (PCOS), compared with healthy adolescents, and to determine whether clinically observed or self-perceived severity of illness affects their HRQL. This was a cross-sectional study of female adolescents conducted at an urban, hospital-based adolescent medicine clinical practice. Ninety-seven adolescent patients with PCOS and 186 healthy patients seen between 15 October 1999 and 2 March 2001 were enrolled in the study.

The main outcome measures were HRQL scores as determined by the Child Health Questionnaire — Child Self-Report Form.

### Results

Adolescents with PCOS scored lower on subscales measuring general health perceptions, physical functioning, general behaviour, and limitations in family activities because of illness. Patients scored higher on the change in health in the last year subscale, and most had been diagnosed with and had initiated treatment for PCOS during the last year. Patients who had higher self-perceived severity of illness also scored lower on the general health perceptions subscale, but clinical severity was not associated with differences in HRQL.

### Conclusions

Adolescents with PCOS experience lower HRQL compared with healthy adolescents. PCOS and perceived severity of illness negatively affect HRQL in adolescents. This study suggests a need to develop interventions to reduce the distress that patients with PCOS may face as adolescents and young adults.

(Trent ME *et al. Arch Pediatr Adolesc Med* 2002; **156**: 556-560.)

## Comparison of agreement between different measurements of BP in primary care and day-time ambulatory BP

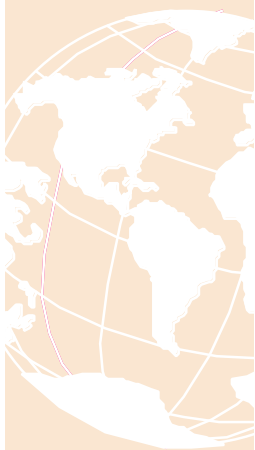
Prospective studies indicate that ambulatory blood pressure is a much better predictor of adverse outcome and response to treatment than readings made by a doctor.

Preliminary evidence suggests that measurements by doctors are likely to be higher than those made by nurses, technicians, or patients. No study has compared all the available measurements in a typical primary care setting with ambulatory blood pressure in patients with newly diagnosed and established hypertension.

A study was recently conducted in three general practices in England to assess alternatives to measuring ambulatory pressure — which best predicts response to treatment and adverse outcome. Patients with newly diagnosed high or borderline high blood pressure and patients receiving treatment for hypertension but with poor control were enrolled in the study.

The main outcome measures were overall agreement with ambulatory pressure, prediction of high ambulatory pressure (> 135/85 mmHg) and treatment thresholds.

The results showed that readings made by doctors were much higher than ambulatory systolic pressure, as were recent readings made in the clinic outside research settings. This applied equally to treated patients with poor control. Doctors' and recent clinic readings ranked systolic pressure poorly compared with ambulatory pressure and other measurements, and were not specific at predicting high blood pressure. Nor were doctor or recent clinic measurements specific in predicting treatment thresholds.



The investigators concluded that the 'white coat' effect is important in diagnosing and assessing control of hypertension in primary care and is not a research artefact. If ambulatory or home measurements are not available, repeated measurements by the nurse or patient should result in considerably less unnecessary monitoring, initiation, or changing of treatment. The authors conclude that it is time to stop using high blood pressure readings documented by general practitioners to make treatment decisions.

(Little P *et al. BMJ* 2002; **325**: 254.)

## Child behaviour and quality of life before and after tonsillectomy and adenoidectomy

A study was performed to determine the relationship between child behaviour and quality of life before and after tonsillectomy and adenoidectomy by means of a standardised assessment of child behaviour, the Child Behaviour Checklist (CBCL), and a validated quality-of-life survey of paediatric obstructive sleep apnoea, the OSA-18.

The participants were children ( $N = 64$ ; mean (SD) age 5.8 (3.1) years; 36 boys, 28 girls) who underwent tonsillectomy and adenoidectomy for treatment of sleep-disordered breathing or recurrent tonsillitis. Parents or caretakers completed the OSA-18 and the CBCL for ages 2 - 3 years or 4 - 18 years before surgery and 3 months postoperatively.

The main outcome measures were the OSA-18 mean survey scores and change scores, and the CBCL total problem T scores and change in total problem T scores.

### Results

The mean (SD) preoperative OSA-18 score was 3.9 (1.5) and the change score was 2.3 (95% confidence interval (CI) 1.9 - 2.7). The mean total problem score was 7.3 points lower after surgery (95% CI 4.9 - 9.7), indicating a significant decrease. The preoperative CBCL total problem score was consistent with abnormal behaviour for 16 children (25%), but only 5 children (8%) scored in the abnormal range postoperatively. The OSA-18 preoperative mean survey score had fair-to-good correlation with the preoperative CBCL total problem T score, and the OSA-18 change score had fair to good correlation with the change in CBCL total problem T score.

The investigators concluded that behavioural and emotional difficulties found in children with sleep-disordered breathing before treatment improve after intervention.

(Goldstein NA *et al. Arch Otolaryngol Head Neck Surg*(2002; **128**: 770-775.)

## Impaired glucose tolerance among children and adolescents with marked obesity

Childhood obesity, epidemic in the USA, has been accompanied by an increase in the prevalence of type 2 diabetes among children and adolescents. The authors of an article<sup>1</sup> recently measured the prevalence of impaired glucose tolerance in a multi-ethnic cohort of 167 obese children and adolescents.

All subjects underwent a 2-hour oral glucose tolerance test (1.75 mg of glucose per kg of body weight), and glucose, insulin, and C-peptide levels were measured. Fasting levels of proinsulin were obtained, and the ratio of proinsulin to insulin was calculated. Insulin resistance and beta-cell function were estimated by calculating the ratio between the changes in the insulin level and the glucose level during the first 30 minutes after the ingestion of glucose.

### Results

Impaired glucose tolerance was detected in 25% of the 55 obese children (4 - 10 years of age) and 21% of the 112 obese adolescents (11 - 18 years of age); silent type 2 diabetes was identified in 4% of the obese adolescents. Insulin and C-peptide levels were markedly elevated after the glucose tolerance test in subjects with impaired glucose tolerance but not in adolescents with diabetes, who had a reduced ratio of the 30-minute change in the insulin level to the 30-minute change in the glucose level. After the body mass index had been controlled for, insulin resistance was greater in the affected cohort and was the best predictor of impaired glucose tolerance.

The authors concluded that impaired glucose tolerance is highly prevalent among children and adolescents with severe obesity, irrespective of ethnic group. Impaired oral glucose tolerance was associated with insulin resistance while beta-cell function was still relatively preserved. Overt type 2 diabetes was linked to beta-cell failure.

1. Sinha R *et al. N Engl J Med* 2002; **346**: 802-810.