OBJECTIVES:
Metabolic features of polycystic ovary syndrome (PCOS) have been poorly investigated in African women where environmental factors are different from those occurring in developed countries. This study aimed to determine the frequency and features of insulin resistance (IR) in Congolese women affected by polycystic ovary syndrome (PCOS).

PATIENTS AND METHODS:
This was a case-control study conducted in women received in three hospital institutions in Kinshasa from 2006-2007. Blood samples were taken to measure HDL and LDL cholesterol, triglycerides, fasting insulin and glucose levels, and the homeostatic model (HOMA-IR) was used to assess IR under basal conditions.

RESULTS:
Fifty-five Congolese women with PCOS and forty-four normal women (mean age 24±6.8 years) were included in the study. Although body mass index was not statistically different between PCOS and control women, IR evaluated by the HOMA-IR was detected in 39.3% of PCOS women. Fasting insulin level was the most significant determinant of IR in the Congolese women with PCOS (OR 2.134 [1.360-3.348]; P<0.001).

CONCLUSIONS:
Nearly one in two women from Congo affected by PCOS is IR and this feature is independent of overweight and central fat distribution. HOMA-IR is the most suitable index than the clinical parameters for detecting IR in these women.