ABSTRACTS

GLUCOSE INTOLERANCE AND ASSOCIATED FACTORS AMONG ANTENATAL CLIENTS AT KENYATTA NATIONAL HOSPITAL AT 24-36 WEEKS.

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ABSTRACT

Background

The prevalence of glucose intolerance worldwide has been on the increase with the highest incidence being among non-industrialized nations. Data on trends especially in pregnancy and associated risk factors in Kenya is lacking. There is evidence that ante partum screening and early intervention prevents future complications and improves maternal-fetal outcome making it essential to screen at risk mothers during pregnancy. The data from this study will provide the current prevalence rates and guidance on clinical circumstances for which screening will be beneficial.

Objective:

To determine the prevalence of, and associated factors for glucose intolerance among antenatal clients at Kenyatta National Hospital between 24-36 weeks of pregnancy.

Study site:

Kenyatta National Hospital antenatal clinic: Nairobi; Kenya

Study design:

Cross-sectional analytical study.

Materials and methods:

One hundred and two antenatal mothers at a gestational age of 24-36 weeks underwent a 100g OGTT between November 15th 2008 and April 15th 2009 after consenting to participate in the study. Their socio-demographic data, obstetric/ gynecologic history and familial history was obtained through an interviewer administered questionnaire. The results were interpreted according to the Carpenter and Couston/American Diabetic Association Criteria and entered in a results sheet. These were then analyzed using SPSS version 15.

Results

From one hundred and two participants, 37(36%) had glucose intolerance while 65 (64%) had normal glucose tolerance. Among clients with glucose intolerance, 16.7% met the diagnostic criteria for gestational diabetes, 3.9% had impaired glucose tolerance while 15.7% had impaired fasting glycaemia. 22.5% of clients with normal glucose tolerance displayed flat curves.

Factors significantly associated with glucose intolerance were: BMI $\geq$ 25; P value 0.036: OR 0.37 (1.06-6.90), history of and treatment for infertility P value 0.002: OR 8.69(1.74-43.50) and family history of hypertension; P value 0.037: OR 2.66(1.04-6.78).

Conclusion

The prevalence of glucose intolerance was 36 %. The factors associated with glucose intolerance were body mass index $\geq$ 25, family history of hypertension and history of infertility.

Recommendations

1. Screening - all antenatal mothers should be screened for glucose intolerance regardless of risk status as part of the antenatal profile.
2. Advocacy-there is need to raise awareness about the diabetic epidemic, its public health implications and the need for screening and intervention to reduce complications.