

Basal and postglucagon C-peptide levels in Nigerians with type 2 diabetes mellitus

Coker AO, Fasanmade OA, Ohwovoriole AE. Department of Medicine Lagos University Teaching Hospital, IdiAraba, Lagos.

Objective

To study basal C-peptide (BCP) and post glucagon C-peptide (PGCP) levels in Nigerians with type 2 diabetes mellitus.

Methods

A total of 40 subjects with type 2 diabetes and 20 control subjects were recruited from the Lagos University Teaching Hospital. BCP and PGCP were determined in all subjects.

Results

Mean \pm SEM BCP of 2.0 ± 1.1 ng/ml and 1.8 ± 0.7 ng /ml in controls and subjects with diabetes was comparable. Mean \pm SEM post glucagon C-peptide (PGCP) and increment in C-peptide from basal was lower in subjects with diabetes compared with the control subjects (2.9 ± 0.22 versus 5.6 ± 0.5 and 1.14 ± 0.2 versus 3.6 ± 0.32 respectively) $p<0.05$ and $p<0.01$. Among the subjects with diabetes, 2 had PGCP levels less than 1 ng/ml and mean increment in C-peptide was 0.03 and -0.06 ng/ml while 10(25%) had PGCP < 1.8 ng/ml.

Conclusion

Post glucagon C-peptide levels are useful in reclassifying subjects Clinically defined as type 2 diabetes mellitus.