Guided Poster Session Abstracts

Тезисы докладов постерной сессии

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*Introduction.* Recent in vitro and in vivo studies have suggested a role of undercarboxylated osteocalcin (ucOC), not total (TOC) osteocalcin in glucose and energy metabolism. To investigate the relationship of ucOC level and glucose control improvement.

**Material and methods.** Fifty seven newly diagnosed type 2 diabetic patients with no history of bone metabolism disturbances had two visits 3 months apart, with physical examination and blood sampling. The patients had consultation about life style changes, no medication was prescribed on visit 1. Weekly (first month) and biweekly telephone contacts were performed to enhance compliance. Samples for parameters of BG metabolism and bone turnover were collected on visit 1 and 2. Standard automated or semi-automated methods were used for measurements, for ucOC the only available commercial kit.

**Results.** Forty seven patients completed the study. Thirty two (56%) patients reached the target HbA1c (<7%). No correlation of ucOC and HbA1c and FBG was observed. Median ucOC and FBG changed significantly (8.0 to 6.5%; 9.0 to 7.0 mmol/L resp.; Wilcoxon signed rank test p<0.001), ucOC was slightly but not significantly lower (2.0 to 1.4 mcg/L; p=0.465). No correlation between differences in HbA1c and ucOC between Visits 1 and 2 was revealed. There was a significant change in HOMA%B but not HOMA IR, not correlated to ucOC.

**Conclusions.** This study failed to prove the relationship between blood glucose regulation and ucOC level. However, it does not exclude it, so further research is needed. A lack of robust essay for human ucOC might explain inconclusive results of clinical studies. The fact that as much as 56% patients achieved the target HbA1c with no medication, challenges most BG control guidelines.

**KEYWORDS**

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**UNDERCARBOXYLATED OSTEOCALCIN IN NEWLY DIAGNOSED DM2 PATIENTS AFTER BLOOD GLUCOSE REGULATION**

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