Conclusions: Despite the severe control objectives in patients with DM2, it is possible to achieve an acceptable degree of efficiency. The nursing usual educational interventions are insufficient and without statistical correlation within a better glycaemic control.

Effect of thyroxin and statin therapy on lipid metabolism in type 2 diabetic patients with sub clinical hypothyroidism

L. Tsutskiridze [a,*], R. Kurashvili, N. Asatiani, E. Shelestova, G. Kurashvili, M. Dundua

[a] *Georgian Diabetes Centre, 1, Chachava str., Tbilisi, Georgia*
E-mail address: l_tsutskiridze@yahoo.com (L. Tsutskiridze).

Background and Aim: The prevalence of thyroid dysfunctions and diabetes is high. Their combination is frequently observed, and GPs are often dealing with DM patients with dislipidemia and subclinical hypothyroidism (SH). Our aim was to assess the association between SH and lipid abnormalities and effect of L-thyroxin and statin therapy on lipid profiles in patients with type 2 diabetes (T2DM).

Methods: In total 66 women with T2DM and SH were studied (mean age 43 ± 7 years, mean diabetes duration 6 ± 2 years). SH was diagnosed based on results of thyroid hormone tests (mean TSH-5.1 ± 1.2 IU/l; mean T3-1.6 ± 0.2 nmol/l and T4-65 ± 10 nmol/l). Patients were separated into two groups (Gr.)—Gr.1: $n = 36$, mean HbA1c: $7.6 \pm 2.2\%$, total cholesterol (TC): 278 ± 28 mg/dl, LDL-cholesterol (LDL-C)-192 ± 23 mg/dl. Therapy with statins was initiated. Gr.2: $n = 30$, mean HbA1c: $7.5 \pm 2.3\%$, TC: 276 ± 26 mg/dl, LDL-C: 189 ± 23 mg/dl. No lipid reducing drugs were used, patients were treated only with diet. Both group patients were on L-thyroxin therapy, T2DM was controlled with oral hypoglycemic agents.

Results: Six months post study initiation following results were obtained—Gr.1: significant reduction in TC: 257 ± 36 mg/dl ($p = 0.01$), LDL-C: 173 ± 28 mg/dl ($p = 0.01$). Gr.2: statistically evident reduction was not observed, TC: 275 ± 26 mg/dl, ($p = 0.25$), LDL-C: 188 ± 22 mg/dl ($p = 0.25$). HbA1c levels dropped to $6.8 \pm 1.8\%$ (Gr.1) and $6.7 \pm 1.7\%$ (Gr.2). L-Thyroxin administration resulted in TSH level normalization in both groups (3.75 ± 0.17 IU/l).

Conclusion: In pts with T2DM and SH levels of TC and LDL-C, are elevated, that increases the risk of cardiovascular disease. L-Thyroxin therapy does not affect lipid metabolism, normalization of lipid profiles can be achieved only with the use of appropriate dyslipidemic therapy.

Chronic kidney disease among diabetic patients in a primary care setting, in rural Greece

A. Papathanasiou [a,b,d,*], I. Lentzas [b], E. Papavasiliou [c], C. Lionis [d]

[a] *Health Medical Center of Stylida, Greece*
[b] *Diabetes Center 'Tzanneio' General Hospital of Piraeus, Piraeus, Greece*
[c] *Department of Endocrinology, Diabetes and Disease of Metabolism, Medical School, University of Crete, Greece*
[d] *Clinic of Social and Family Medicine, Medical School, University of Crete, Greece*
E-mail address: ath_papathanasiou@yahoo.com
(A. Papathanasiou).

Aims: To assess the prevalence of chronic kidney disease (CKD) as defined by reduced estimated glomerular filtration rate (eGFR) in patients with diabetes mellitus (DM) in primary care and discuss the clinical utility of this measurement in general practice.

Method: All patients with DM type 2 have been registered at the rural practice from November 2006 to June 2007. The modification of diet in renal disease (MDRD) equation was used to determine stage of CKD. Serum creatinine (SCr), albuminuria, blood pressure (BP), LDL, HbA1c were recorded. Patients with factors other than DM, known to cause renal damage based on clinical and laboratory data were excluded.

Results: Of the 170 patients 17 (10%), 105 (62%), 44 (26%) and 3 (2%), had eGFR >90, 90–60, 60–30 and <30 ml/min per $1.73 \, m^2$, respectively. HbA1c 7.8 (S.D. 1.6), BP 145/85 (S.D. 20/10), LDL 140 (S.D. 25), SCr 1.1 (S.D. 0.9), albuminuria present (%) 31. Increased risk of CKD (eGFR < 60 ml/min per $1.73 \, m^2$) was associated with: female sex (adjusted OR 2.09), older age (adjusted OR per year 1.11), duration of diabetes (adjusted OR per year 1.13) and follow-up in a secondary care setting (adjusted OR 1.37). Fifty-eight of the patients with CKD were not aware of their diagnosis. Forty nine percent of patients with eGFR <60 ml/min per $1.73 \, m^2$ had normal SCr and 35% were normoalbuminuric.

Conclusions: General practitioners should consider using MDRD in order to assess renal status and risk in patients with DM and to implement early treatment for CKD.

Ten years of research about diabetes and primary care 1995–2004: Where should primary care diabetes papers be published?

D. Orozco-Beltran [a,*], M.C. Carratalá, V. Gil, J. Navarro, A. Navarro, X. Cos

[a] *Cathedra Family Medicine, University Miguel Hernandez, c/ Currican 21 Bw 4, 03540 Alicante, Spain*
E-mail address: atencion.primaria@umh.es (D. Orozco-Beltran).

Aim: To examine the research productivity in ten years about diabetes mellitus (DM) and primary care (PC).

Methods: A retrospective observational study—bibliometric analysis. Manuscripts published for the period 1995–2004 and included in Medline Pubmed database. The strategy was:

(("Nurse Practitioners") OR ("Physicians, Family") OR ("Primary Health Care") OR ("Family Practice")) AND ("Diabetes Mellitus" OR "Diabetes Mellitus, Type 2" OR "Diabetes Mellitus, Type 1" OR "Diabetes Mellitus, Lipoatrophic" OR "Diabetes Mellitus, Experimental" OR "Diabetes Complications" OR "Diabetes, Gestational"). The number of articles published in a journal multiplied by its 2006 impact factor was considered as an index of quantity and quality of research (QQ index).

Results: Seventy four thousand six hundred and thirty seven papers about DM and 48448 about PC were published. Only 1401 were about DM + PC, published in 387 different journals. Twelve journals (Diabet Med, Diabetes Care, BMJ, Aten Primaria, Aust Fam Physician, Br J Gen Pract, Adv Nurse Pract, J Fam Pract, Scand J Prim Health Care, Fam Pract, MMW Fortschr Med, Diabetes Res Clin Pract) grouped 31% of papers. "Diabet Med" is the journal with more articles (85 papers; 3.8% of articles) and Scand J Prim Health Care is the best in proportional (26 papers; 5.3% of total articles) terms. According to QQ index, Diabetes Care (64 papers × 7.9 impact factor = 506) is the best journal.

Conclusions: One thousand four hundred and one papers were published in 387 different journals. Diabet Med is the journal with more productivity. Diabetes Care is the best journal if productivity and impact factor are combined. A DM + PC journal is needed.

Lowering the cut point for impaired fasting glucose (IFG): How much does it cost?

Raquel Gayarre[a,*], Gemma Vilaseca Cortes, Noemí Obiols Anna Navarro, Pilar M. Angels Roura

[a] *Institut Catalá de la Salut, c/ Navas de Tolosa 344 3° 2a, 08027 Barcelona, Spain*
E-mail address: 37060rga@comb.es (R. Gayarre).

Aim: To evaluate the incidence of diabetes and impaired fasting glucose(IFG) in patients with isolated fasting glucose (FG) (5.6–6.9 mmol/l), based on the new diagnostic criteria 2004 of The American Diabetes Association(ADA) for IFG. To analyze the costs of every new diagnosis of diabetes based on the application of the new or previous diagnostic criteria for IFG ADA 2004.

Methods: Observational prospective study of cohorts, in an urban primary care centre. Two-hundred and seventy-four non-diabetic patients were included, with one elevated FG between 1 November 2003 and 30 April 2004. Patients were divided in two groups: A (FG 5.6–6.1 mmol/l), and B (6.1–7 mmol/l). We analyzed the incidence of diabetes, IFG and the costs of the blood analysis of each new diagnosis after 2 years of follow up.

Results: The mean age was 59 years old, 43.4% were male. The incidence of diabetes was 14.6%, of IFG 46.7%. Group A ($n = 159$): the incidence of diabetes was 5.7% (nine cases) and the incidence of IFG was 51.6% (82 cases). Three hundred and ninety-three glycaemia and 48 HbA1c were measured. The cost of these measurements, for each new diagnosis of diabetes, was €290.57. Group B ($n = 115$): the incidence of diabetes was 27% (31 cases), of IFG 40% (46 cases) and 22.6% had nor-mal FG value on follow up.330 glycaemia and 83 HbA1c were measured. The cost for each new diagnosis was €84.98 euros. There is a significant difference in the incidence between both groups ($p = 0.000$).

Conclusion: Lowering the cut point for IFG supposed in our cohort an increment of 29% in new diagnosis of diabetes and an increment of 169% in new diagnosis of IFG. The new cut point seems to increase the cost of every new diagnosis of diabetes. New studies are needed to asses if this increase is reflected in a better control of diabetic patients.

How are we using SMBG in our Type 2 diabetic patients?

D. Martinez-Laguna[a,*], A. Conesa-Garcia, M. Pie-Oncins, F. Sancho-Almela, R. Poza-Martinez, M. Simo-Pinyol, M. Isabel Fernandez-San Martin

[a] *EAP Sant Martí. Institut Catala de la Salut, C/ Beethoven 6-10, 3er 1a, 08224 Terrassa, Barcelona, Spain*
E-mail address: 34859dml@comb.es (D. Martinez-Laguna).

Aims: In the last years our centres have delivered SMBG strips that have been controlled by a manual registry. Thanks to the introduction of computer clinical record, this process must be computerized. We check and review how SMBG indication is, according to the present guidelines in our setting. Our aim has been to know the adequacy of SMBG indication. Intervention method descriptive cross sectional study.

Methods: Subjects All type 2 diabetic (T2D) patients (category CIE-10 E11 and sub-categories) using SMBG, controlled in two urban Primary Care Centres from January to December 2006. Evaluation method A year afterwards of introduction of computer clinical record and modifying the number of strips, we analyze the adequacy of SMBG indication according the treatment categories (insulin, secretagogues (SG), non-secretagogues (NSG) and diet).

Results: Two-hundred and eight fifty eight patients had T2D registered and 1496 (52.3%) used SMBG. 39.4% took insulin (alone or with oral agents); 47.3% took SG (alone or with NSG); 9% were only on NSG and 4.3% follow diet advice. Globally in 40.5% the SMBG indication was suitable; in patients on SG alone or with NSG the indication was suitable in 71.8%. One hundred and twenty-two patients (9%) were on NSG and used SMBG inappropriately.

Conclusion: The computer clinical record has diminished the SMBG indication inappropriate especially in the patients with SG agents. The use of this program helps us to evaluate the accuracy of SMBG indication like the economical beneficial impact.