P05-12

Bariatric surgery treatment for type 2 diabetes

Mirošević G (1), Kruljac I (1), Nikolić M (2), Butorac D (3), Ljubičić N (2), Vrkljan M (1)

(1) University Hospital Centre "Sestre milosrdnice", Division of Endocrinology, Diabetes and Metabolic Diseases, Department of Internal Medicine, Zagreb, Croatia
(2) University Hospital Centre "Sestre milosrdnice", Division of Gastroenterology and Hepatology, Department of Internal Medicine, Zagreb, Croatia
(3) University Hospital Centre "Sestre milosrdnice", Department of Gynecology and Obstetrics, Zagreb, Croatia

Corresponding author: goranamirosevic1@net.hr

Background: Bariatric surgery treatment should be considered in cases of extreme obese patients with type 2 diabetes, who could not reduce body mass through physical activity, diet and pharmacotherapy.

Materials and methods: There are two female patients shown with type 2 diabetes regulated by oral hypoglycemic agents, who were subjected to gastric sleeve resection.

Results: A 55 year old patient had BMI of 43.5 kg/m^2, blood glucose 10 mmol/L, HbA1c 7.4 %, score for beta-cell function assessment (HOMA-B) 34%, preoperative insulin sensitivity (HOMA-S) 56.4%, ghrelin level 807.7 pg/mL, and leptin level 35 ng/mL. A year after surgery BMI was reduced to 32.7 kg/m^2, whereas blood glucose (5.9 mol/l) and HbA1c (6%) were normalized without hypoglycemic agents. HOMA-B increased to 95% and HOMA-S to 60.1%. Ghrelin increased to 864 pg/mL and leptin decreased to 8.1 ng/mL.

A 44 year old patient had BMI 44.9 kg/m^2, blood glucose 8.2 mol/L, HbA1c 6%, HOMA-B 51%, HOMA-S 55.5%, ghrelin 603 pg/mL, and leptin 29.3 ng/mL. A year after surgery BMI was reduced to 35.3 kg/m^2, whereas blood glucose (4.3) and HbA1c (4%) were normalized without hypoglycemic agents. HOMA-B increased to 130.1% and HOMA-S to 102.6%. Ghrelin increased to 1008 pg/mL and leptin decreased to 12.3 ng/mL.

Conclusions: Reduction of body mass leads to improvement of pancreatic beta cell function and therefore better diabetes control. Bariatric surgery is a promising method for treating diabetes in obese patients.

P06 – Education

P06-01

Do we need complex education courses in special fields of laboratory medicine?

Vavilova T, Sirotkina O, Gaikovaya L

North-West State Medical University named after Mechnikov, Laboratory Department, Saint-Petersburg, Russia (Russian Fed.)

Corresponding author: vtv.lab@rambler.ru

Objective: The fast progress in knowledge about coagulation disorders and new pharmacological agents for treatment and haemorrhagic and thrombotic events are the reason for complex education for clinicians and laboratory staff.

Materials and methods: From Sept 2006 up to May 2012 we organized 10 CME courses “Clinical and laboratory aspects of coagulation disorders” 72 h duration (Lectures – 26 h; Seminars + exam – 24 h; Practical classes in laboratory and clinical departments – 22 h).

Results: 58 persons were educated – 38 laboratory professionals and 20 clinicians (cardiologists, gynaecologists, internists, clinical pharmacologist) from 8 cities and 34 medical centres. The better experience was to educate both – laboratory staff and clinician from the same medical centre in the same time. One year after finishing the course the questionnaire was sent to participants: the usefulness were marked by 94%, “important for every day work” – 86%, “wish to repeat in a 5 years” – 93% of responders. The more important themes: genetics of thrombophilia, laboratory testing in acquired and inherited bleeding and thrombotic disorders (risk factors, reasons, predisposition), DIC, laboratory control of antithrombotic and anti-

platelet therapy, new anticoagulants, discussions around the clinical cases, patient's examination.

Conclusion: Complex education in special fields of laboratory medicine for clinicians and laboratory staff is the important part of postgraduate CME. It allows improving clinical work in medical centres, especially in difficult and unusual clinical situations.

P06-02

Preparing medically oriented education of scientific staff in line with the EC4RC syllabus

Wallinder H (1), Pettersson T (2), Ohlsson M (3), Bökman F (4), Olsson L (5), Gälman C (6)

(1) Swedish Association of Clinical Biochemists, Aleris Medilab, Clinical Chemistry, Stockholm, Sweden
(2) Swedish Association of Clinical Biochemists, LeanLabMed, Medical Diagnostics, Stockholm, Sweden
(3) Swedish Association of Clinical Biochemists, Sahlgrenska University Hospital, Clinical Chemistry, Gothenburg, Sweden
(4) Swedish Association of Clinical Biochemists, Falu Lasarett, Clinical Chemistry, Falun, Sweden
(5) Swedish Association of Clinical Biochemists, Örebro University Hospital, Clinical Chemistry, Örebro, Sweden
(6) Swedish Association of Clinical Biochemists, Karolinska University Laboratory, Clinical Chemistry, Stockholm, Sweden

Corresponding author: Hans.Wallinder@aleris.se

Background: Healthcare and medical diagnostics are in transformation enforced by growing patient demands but shrinking financial recourses simultaneously in a process of translating expanding biological knowledge and emerging new technologies into valuable medical practices. Educational programs in medical diagnostics must adopt new diagnostic focus, scientific and technical knowledge, service oriented operational skills and business oriented management. Multidisciplinary trends and system thinking in healthcare services add collaborative dimensions into the practice of medical diagnostics. A gap in Swedish laboratory medicine is lack of organized medically oriented training of the scientific staff. The Swedish Association of Clinical Biochemists has initiated an effort to prepare a multidisciplinary educational program to improve the scientific knowledge base in support of diagnostic service excellence.

Methods:

1) Systematic investigation of the present status among scientific staff to fully understand variation
2) Benchmark the present status knowledge base with that suggested in the EC4RC syllabus
3) Investigate future healthcare demand to envision scientific and corresponding diagnostic qualifications
4) Establish collaboration with the medical and operational staff in design of educational program
5) Establish road map for change and agreement on methodology for progress.

Results: The present status is evaluated against the EC4RC syllabus. A holistic approach to future medical diagnostic services is formulated and communicated as well as a strategic approach regarding the role of the scientific staff.

Conclusion: The role of the scientific staff in Swedish laboratory medicine will be defined through dedicated training program and integrated into the Swedish Model of Medical Diagnostic Practice.

P06-03

Education in laboratory medicine at Lithuanian university of health sciences

Urboniene D, Skrodeniene E, Vitkauskiene A

Lithuanian University of Health Sciences, Department of Laboratory Medicine, Kaunas, Lithuania

Corresponding author: daivaurboniene@yahoo.co.uk

Lithuanian University of Health Sciences (LUHS) is a State University of the Republic of Lithuania, established in Kaunas in 1922. It is the largest institution providing university degrees, training and research in biomedical sciences in Lithuania. Laboratory medicine at LUHS covers education of Laboratory Medicine Physicians and other healthcare professionals, including undergraduate, postgraduate

and continuing education, PhD studies. Professionals of Department of Laboratory Medicine take considerable part in field of laboratory medicine within different study programmes. Qualification of Laboratory Medicine Physician is obtained by specialist after multidisciplinary Laboratory Medicine residency study programme (4-years duration) following integrated Medicine study programme (6-years duration; degree – Master in Medicine; qualification – Medical Doctor). Laboratory Medicine residency study programme includes different fields of laboratory medicine: general questions of laboratory medicine, clinical chemistry, laboratory hematology, general tests and cytology of body fluids, laboratory immunology and genetics, clinical microbiology and ect. Study programme is designed to meet the European Union (EU) and United States Medical Licensing Examination (USMLE) standards with their internationally accredited exams. European Credit Transfer System (ECTS) is applied. The LUHS's degrees are recognized in the countries of the EU, USA, Lebanon, Israel, India, Turkey, Jordan, etc.

P06-04

Transnational Project: Developing Good Practice in Preregistration Training (UK & Malta)

Martin J (1), Wilson G (2), Adkins A (3), Cobley A (4), Hudson J (5), Khan A (6)

(1) University of Wolverhampton, Biomedical Science and Physiology, Wolverhampton, United Kingdom
(2) Cheltenham General Hospital, Biochemistry, Cheltenham, United Kingdom
(3) University of Birmingham, Clinical Immunology Service, Birmingham, United Kingdom
(4) City Hospital, Haematology, Birmingham, United Kingdom
(5) New Cross Hospital, Microbiology, Wolverhampton, United Kingdom
(6) Nuffield Hospital, Microbiology, Leamington Spa, United Kingdom

Corresponding author: j.martin@wlv.ac.uk

Background: The European Commission Leonardo da Vinci Mobility funding stream awarded a grant to enable 17 training officers from the UK to visit the Mater Dei Hospital and the University of Malta (UoM).

Materials and methods: Over two years, four teams of training officers each spend one week in Malta undertaking comparative analysis of the delivery of training to preregistration biomedical scientists so that new methods of good practice and innovative delivery for training can be developed.

Results: Aspects of good practice included, involvement of different grades of hospital laboratory staff in delivery of practical sessions at UoM; dedicated pathology teaching laboratories equipped with state of the art equipment; training officers who are also part-time lecturers within the UoM delivering basic laboratory skills training to the whole student group prior to them spending time within the hospital laboratory, provision of mock training areas where students can use simulated patient samples and training microscopes connected to large display screens. Innovative methods for training included streamlining generic aspects of competence assessments, establishing a transnational biomedical science training network/pathology e-learning site including various laboratory tests, virtual lectures, podcasts and shared resources for CPD activities, provision of mock training areas particularly for specimen reception, integration of theory and practice and ensuring that standard working laboratory practices are developed at an early stage in University practical classes.

Conclusion: Experiencing training within a different European setting has enabled training officers to share good practice, suggest innovative delivery of training and to fulfil their own personal objectives.