DEVELOPMENT OF THE CLINIC OF ENDOCRINOLOGY, DIABETES AND METABOLIC DISORDERS

Shubeska Stratrova S

Clinic of Endocrinology, Diabetes and Metabolic Disorders, Skopje, R. Macedonia

Corresponding Author: Shubeska Stratrova Slavica, Clinic of Endocrinology, Diabetes and Metabolic Disorders, R. Macedonia, Tel: = 389 (0)2 070 38 70 47; E-mail. Slavass02@yahoo.com

Abstract
The Clinic of Endocrinology, diabetes and metabolic disorders was founded in 1975 by Prof d-r Alexandar Plashevski. Healthcare, educational and scientific activities in the Clinic of Endocrinology are performed in its departments. The Department for hospitalized diabetic and endocrine patients consists of the metabolic and endocrine intensive care unit, the department for diagnosis and treatment of diabetics and endocrine patients, day hospital, the department for education of diabetic patients, and the national center for insulin pump therapy. The Center for Diabetes was established in 1972 by Prof d-r Dimitar Arsov. In 1975, Prof d-r Alexandar Plashevski broadened the activities of the Center for Diabetes. It was dislocated in 1980, with new accommodation outside the clinic. Since then the Center has consisted of several organized units: two specialist outpatient clinics for diabetic patients, biochemical and endocrine laboratory, sub-departments for: diabetic foot, cardiovascular diagnosis, ophthalmology, and urgent interventions. The Department of Endocrinology and Metabolic Disorders for outclinic endocrine patients was established in 1980, and it integrates the following sub-departments: thyrology, andrology, reproductive endocrinology, obesity and lipid disorders and sub-department for osteoporosis. The educational staff of the Clinic of Endocrinology organizes theoretical and practical education about Clinical Investigation and Internal Medicine with credit transfer system course of study of the Medical Faculty, Faculty of Stomatology, postgraduate studies, specializations and sub-specializations. Symposiums, 3 congresses, schools for diabetes and osteoporosis and continuous medical education were also organized. The Clinic of Endocrinology was initiator, organizer, founder and the seat of several medical associations.

Key words: Endocrinology, Diabetes, Metabolic Disorders, University Clinic, Medical Faculty Skopje.

The Endocrinology, Diabetes and Metabolic Disorders Clinic was founded in 1975. It was developed as a subspecialistic unit from the Clinic of Internal Diseases. The first director was Prof. Dr. Alexandar Plashevski. Prof. Dr. Kiril Petrovski was the next director from 1986 to 1998. After his retirement, Prof. Dr. Milco Bogoev, Prof. Dr. Cedomir Dimitrovski, and current director Prof. Dr. Slavica Shubeska Stratrova have conducted the clinic.

Healthcare, educational and scientific activities in the Clinic of Endocrinology are performed in the Department for Hospitalized Diabetic and Endocrine Patients, in the Center for Diabetes and the Department of Endocrinology and Metabolic Disorders for endocrine outpatients.

Department for the hospitalized diabetic and endocrine patients (hospital part of the clinic). This consists of the metabolic and endocrine intensive care unit, the department for diagnosis and treatment of diabetics and endocrine patients, the day hospital, the department for education of diabetic patients, and the national center for insulin pump therapy.

The diagnosis and treatment of diabetic and endocrine patients is performed in the hospital part of the clinic. The day hospital is used for patients who do not need to stay in hospital, and come only for the examinations and leave the hospital afterwards. Diagnostic tests are performed in this department, and treatment follow-up. The intensive care unit is completely equipped with a monitoring system, defibrillator, glucometer, system for oxygenation, aspiration, and so on.
In Macedonia, organized group education started for the first time in 1995 in the Department for the Education of the Diabetic Patients in the Clinic of Endocrinology. In our educational team there were two doctors – diabetologists – and three medical nurses trained in diabetes education. Education was organized as a 4-days’ work with a small group of patients (5–8 in one group), and on the last day the patients were tested about their knowledge of diabetes. In the past 15 years we have educated about 3000 patients with type 1 and type 2 diabetes. At the same time there has been education for other educational teams (doctors and nurses) from other diabetes centers in our country. We have prepared a few publications for patients about diet, foot care, urgent conditions in diabetes (sick-day rules) and gravity and diabetes. We have summarized our experience in patient education and we published a manual for the education of diabetes educators which helps us standardize the education process in the whole country.

The National Center for Insulin Pump Therapy was founded in 2007, as a result of 6 years of work with young type 1 diabetics. The Center is a part of the Clinic and its main objectives are: implementation of insulin pumps and glucose sensors in type 1 diabetics, continuous education on diabetes, and implementing new technologies in the everyday life of diabetics. The center has 62 patients (aged 1.5–56 years) and around 430 implanted glucose sensors.

The Center for Diabetes was established in 1972 by Prof. Dr. Dimitar Arsov, three years before the structural reorganization of the Clinic of Internal Diseases. The initial activities started in one room with two employees (one doctor and one nurse) and it worked one day a week. In 1975, during the reorganization of the Clinic of Internal Diseases, and when the Clinic of the Endocrinology was established with its first director, Prof. Dr. Alexandar Plasheski, the activities of the Center for Diabetes were broadened. It was relocated in 1980, with new accommodation outside the clinic.

Since then The Center has consisted of several organized units: two specialist outpatient clinics for diabetic patients, a biochemical and endocrine laboratory, subdepartment for diabetic foot, cardiovascular diagnosis, ophthalmology, and one for urgent interventions.

Early detection of pre-diabetes and diabetes was enabled in it, as well as treatment and education of diabetic patients. About 16,000 examinations a year were performed.

In 1975 the first Chief of the Center for Diabetes was Prof. Dr. Kiril Petrovski, and in 1987 Prof. Dr. Samuel Sadikario, whereas the current Chief is Dr. Victoria Percan. Professional healthcare, as well as educational and scientific activities were included in the Center for Diabetes. A multidisciplinary approach was used in solving the most complicated diabetologic health problems.

The Ophthalmology Subdepartment was set up with the establishment of the Center for Diabetes. It enables early detection and management of diabetic retinopathy as well as other ophthalmopathies, especially in thyroid disease, Morbus Graves Basedow and hypophyseal tumours. The ophtalmologist works in a team with endocrinologists, thus achieving better results.

The Diabetic Foot Subdepartment was also organized with the establishment of the Center for Diabetes. Screening and early diagnosis of the patients at risk of diabetic foot was performed here. This subdepartment was the first in the Diabetes Center to have Doppler instrument apparatus for the examination of the peripheral arterial disease, in order to lower the number of amputations of the diabetic gangrene. Besides diagnosis of the peripheral vascular disease and diabetic neuropathy, diabetic foot wounds are also treated, as well in the diabetic foot subdepartment.

The National Diabetes Registry was set up within the Center for Diabetes, which is a programme supported by the Ministry of Health and the Health-care Fund. It is a project, an on-line programme for the registering and management of diabetic patients in Macedonia. Outpatient clinics, hospitals and pharmacies are working on-line to input the data from the patients. The project covers all diabetic centers in Macedonia. The National register of diabetics was constructed with a computer programme for diabetics, and with the possibility of further electronic card use. In the Center of Diabetes we have registered 14,300 patients with diabetes: 400 with Type 1 diabetes and 6,900 with Type 2 diabetes on insulin treatment, and the rest with Type 2 diabetes.

The Department of Endocrinology and Metabolic Disorders for outclinic endocrine patients
Development of the Clinic of endocrinology, diabetes and metabolic disorders

The Clinic of endocrinology, diabetes and metabolic disorders was established in 1980. On average about 9,000 patients are examined a year. This department integrates the following subdepartments: thyrology, andrology, reproductive endocrinology, obesity and lipid disorders, and a subdepartment for osteoporosis.

The Subdepartment for thyroid diseases enables detection and treatment of patients with thyroid disease, echotomographic detection, and biopsy puncture of thyroid tissue.

The Subdepartment of Andrology takes care of about 250 patients a year with male infertility and male hypogonadism. About 700 spermograms are performed each year.

The Osteoporosis Subdepartment in the Clinic of Endocrinology, Diabetes and Metabolic Disorders was established in 2005 and started with heel ultrasound examination. Over the next two years about 4,000 patients were examined. In February 2007 the Clinic of Endocrinology received as a donation a Dual Energy X Ray absorptiometry machine, and in the next three years 8,000 patients were examined (checked for osteoporosis). It especially enabled early detection and management of the postmenopausal osteoporosis. Also, it is used in detecting osseal deterioration in other endocrinologic diseases. Biochemical bone markers are also used as a very useful diagnostic tool in diagnosis and osteoporosis management follow-up.

Subdepartment for Thyroid Diseases

The Subdepartment of Obesity and Disorders of Lipid Metabolism takes care of the hormonal detection of obese and lipid disorders. Scientific work has enabled diagnostic criteria of the relative functional hypercorticism. Also, anthropometric diagnostic criteria of visceral obesity and metabolic syndrome have also been performed. Obese patients with and without complications are educated and treated in this subdepartment.

Education and scientific work

The Educational medical staff of the Clinic of Endocrinology consists of: Prof. Chedomir Dimitrovski, Prof. Milcho Bogoev, Prof. Brankica Krstevska, Prof. Gordana Pemovska, Prof. Slavica Shubeska Stratrova, Prof. Tatjana Milenkovic and Prof. Snezana Markovik Temelkova. Assistant professors are: Dr. Goran Petrovski, Dr. Iskra Bitovska, Dr. Sasa Mishevska Jovanovska, Dr. Nevena Laban Gucheva, Dr. Irfan Ahmeti, and Dr. Tosho Plashevski.

The educational staff of the Clinic of Endocrinology organizes theoretical and practical education about Clinical investigation and Internal medicine with a credit transfer system course of study at the Medical Faculty, the Faculty of Stomatology, 3-year-study profiles, postgraduate studies, specializations and subspecializations.

Three congresses on endocrinology and diabetology have been organized, in 2000, 2004 and 2008. Continuous medical education is organized. Symposiums, schools for diabetes, schools for osteoporosis, section meetings and workshops have also been organized.

The Clinic of Endocrinology has been the initiator, organizer, founder and the seat of several medical associations: the Scientific Association of Endocrinologists and Diabetologists of Macedonia (2002), the Macedonian Association on Osteoporosis (2001), the Macedonian Association for Obesity MZD (2004), and the Macedonian Association on Andrology (2004).

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Diabetes mMonitor and Sekerna bolest.
Twenty scientific projects were have been conducted on at the clinic.

Резиме

РАЗВОЈ НА КЛИНИКАТА ЗА ЕНДОКРИНОЛОГИЈА, ДИЈАБЕТЕС И МЕТАБОЛИЧКИ НАРУШУВАЊА

Шубеска Стратрова С

Клиника за ендокринологија, дијабетес и метаболички нарушувања, Скопје, Р. Македонија

Клиниката за ендокринологија, дијабетес и метаболички нарушувања беше основана од проф. д-р Александар Плашески. Здравствени, едукацијските и научни активности се изведуваат во одделенијата на Клиниката за ендокринологија. Одделенето за хоспитални дијабетични и ендокрини пациенти се состои од единица за интелигивна метаболна и ендокрина гржка, одделение за дијагноза и тretман на дијабетични и ендокрини пациенти, дневна болница, одделение за едукација на дијабетични пациенти и национален центар за тretман со инсулинови пумпи. Центарот за дијабетес беше основан во 1972 од проф. д-р Димитар Арсов. Во 1975 проф. д-р Александар Плашески ги прошири активностите на Центарот за дијабетес. Тој беше дислоциран во 1980, со ново сместување надвор од клиниката. Од тогаш Центарот се состои од неколку организациони единици: две специјалистички амбулантки за амбулантски дијабетични пациенти, биохемиска и ендокринолошко лабораторија, пододдели за: дијабетично стапало, кардиоваскуларна дијагностика, офталмологија и ургентни интервенции. Одделенето за ендокринологија и метаболни нарушувања за амбулантски пациенти беше основано во 1980, и ги интегрира следните пододдели: тирофункција, андрологија, репродуктивна ендокринологија, дебелина и липидни нарушувања и пододдел за остеопороза. Едукацијските активности на Центарот за ендокринологија организира теоретска и практична едукација за клинички испитувања и интерна медицина со кредит трансфер систем на настава на Медицинскиот факултет, Стоматолошкиот факултет, последипломските студии, специјализации и субспецијализации. Исто така беше организиран симпозиуми, три конгреси, школи за дијабетес и остеопороза и континуирана медицинска едукација. Клиниката за ендокринологија беше инцидентар, организатор, основач и седиште на неколку медицински здруженија.

Ключни зборови: