ABSTRACT BOOK

Abstracts of the Eighth Libyan Diabetes and Endocrinology Conference

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Guest Editors: Amna A. Salhin*[1], Salem A. Eltabal[2], Abdelhadi M. Habeb[3], Salem A. Beshyah[4]

1. Diabetes and Glandular Disease Clinic, San Antonio, Texas, USA
2. Department of Medicine, Garyounis University, Benghazi, Libya
3. Maternity & Children Hospital, Al Madinah, KSA
4. Sheikh Khalifa Medical City, Abu Dhabi, UAE

*Corresponding Editor: Amna A. Salhin Email: Asalhin@hotmail.com

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LDEC2010 ABSTRACTS

MEDAL AND MEMORIAL LECTURES:

M1. IBNOSINA MEDAL LECTURE 2010: HYPOPITUITARISM REPLACEMENT THERAPY: IS IT TIME TO RE-DEFINE OUR GOALS? Ibrahim Sherif, Libyan Board of Medical Specializations, Tripoli, Libya

On face value endocrinologists have made great strides in the understanding and diagnosis of pituitary disease with even greater advances of the molecular aspects of the different syndromes, but looking back over the past 30 years I have been looking after such patients, I detect no great advance in their management. The approach of treatment is still built on the premise that the trophic hormone deficiency is corrected by replacing the target organ hormone and no attempt has been made to try and mimic the physiological pattern of the trophic hormone action, pulsitile and diurnal variation secretion and effect at the receptor level depending on hormone concentration time of day it is given and totally ignoring the role of the positive and negative feedback loops that become deranged or absent in hypopituitarism. Diabetologists redefined their goals and targets when they realized that their treatment was associated with reduced life expectancy and we are now seeing remarkable progress, not to mention cardiologist and their great achievements with blood pressure and lipid goals and targets. Endocrinologists knew for a long time that hypopituitarism was associated with reduced life expectancy and poor quality of life not to mention the childless broken marriages and the pain of osteoporosis for those who insist on staying alive despite our inferior treatments. I propose that our replacement therapy should endeavor to achieve: 1) Thyroid hormone replacement without compromising cardiac or bone health. 2) Cortisol replacement mimicking the normal physiological pattern and avoiding intermittent supraphysiological doses leading to side effects of chronic steroid therapy. 3) Androgen replacement for both male and female to achieve a satisfactory libido and maintain the sanctity of marriage. 4) Estrogen therapy for women below the age of 50 to maintain as near normal female function as possible. 5) Gonadotrophin replacement to achieve spermatogenesis in the male and ovulation in the female and creation of centers with experience in assisted reproduction. 6) Growth hormone replacement therapy for the under 50s at least. 7) Prevention of osteoporosis that is expected because of the disease and it therapy. 8) A meaningful increase in life expectancy. It is time we improve on the regimen of hydrocortisone 20mg mane and 10mg nocte, Levothyroxine 100 or 150mcg QD and testosterone 250mg every three to four weeks and premarin or other HRT. I will try to argue that even we in the developing world should do better by refining and optimizing our replacement and avoiding the assumption that they are lucky to be alive and all that can be done is being done.

M2. AL FITOURI MEDAL LECTURE 2010: IODINE DEFICIENCY DISORDERS: GLOBAL, REGIONAL, AND LOCAL PERSPECTIVES. Ahmed Swalem, University Department of Medicine, Hawari General Hospital, Benghazi, Libya

Goiter, hypothyroidism, and various physical developmental, psychomotor and mental deficiencies may exist in those with inadequate iodine intake, and are collectively termed iodine deficiency disorders (IDD). Iodine deficiency is the world`s most prevalent, yet easily preventable cause of brain damage. The essential micronutrient of iodine serves as a precursor in the synthesis of the thyroid hormones. The amount of iodine in soil and water has been decreasing over centuries, and one third of the world population lives in areas of iodine deficiency, in particular those inhabitants of mountainous areas of the world. Very severe iodine deficiency may occur in people in remote regions of the world and is associated with severe physical and mental impairment, termed endemic critinsm. IQs of affected individuals may be 10 to 15 points below comparable iodine-sufficient populations. However small but significant loss in IQ and psychomotor performance is also seen with mild to moderate iodine deficiency. Assessment methods of iodine deficiency include urinary iodine concentration, goiter rate, newborn TSH, and serum thyroglobulin. Assessment of iodine status during pregnancy is difficult. Universal salt iodization (USI) and iodine supplementation are highly effective strategies for preventing and controlling iodine deficiency. Globally, it is estimated that 2 billion individuals have insufficient iodine intake, and South Asia and Sub-Saharan Africa are particularly affected. However, about 50% of Europe remains mildly iodine deficient, and iodine intakes in other industrialized Countries including United States and Australia, have fallen in recent years. Member countries of the eastern Mediterranean region (EMR) begin assessment of IDD and developed control programs in 1987. Tunisia has reached IDD-free status, while Jordan, Egypt, and Palestine have been successful in increasing iodine supplementation. Islamic Republic of Iran has conducted an optimum program for control of IDD with sustainable and well-functioning iodization program. Howev-

er mild to moderate IDD prevail in other EMR region and some people of Afghanistan, Iraq, Yemen, and Pakistan are still suffering from severe iodine deficiency. Data on IDD in Libya are scarce. A 1975 survey showed mild to moderate iodine deficiency in the Northern regions and moderate to severe iodine deficiency in the Southern regions with goiter rates of <10% and 55% respectively. An Endemic Goiter Unit was established but not continued. Salt iodization began in 1980 and household consumption of iodized salt reached 90%. Continuous monitoring of iodine status and iodization program is urgently needed in Libya. USI is now implemented in nearly all countries worldwide, and two thirds of the world`s population is covered by iodized salt. The number of countries with iodine deficiency as a national public health problem has decreased from 110 in 1993 to 47 in 2007. Monitoring of iodine deficiency programs is essential. The challenges ahead lie in ensuring higher coverage of adequately iodized salt, strengthening regular monitoring of salt iodization and iodine status together with targeted interventions for vulnerable population groups.

M3. TAREK ELSHARIF MEMORIAL LECTURE : THE SCOPE OF PEDIATRIC AND ADOLESCENCE DIABETES IN 2010 Abdelhadi M Habeb, Endocrine & Diabetes Unit, Maternity & Children Hospital , Al Madinah Al Monawarah, KSA

It is estimated that around 75,000 children develop diabetes annually and the incidence is rising. Although the majority of them have Type 1 diabetes (T1DM), other forms of diabetes are emerging. Whilst the diagnosis is usually simple, the etiology and pathogenesis of T1DM are still not clearly understood. The management is a challenge and needs a combination of art and science delivered by a multidisciplinary team. Despite the availability of various insulin preparations, good control cannot be achieved without proper education and family support. The last decade was characterized by the intensive use of technology in the management of childhood diabetes however; technology has provided only a palliative care. The major breakthrough in modern era was the ability of switching few children and adolescents from insulin to oral hypoglycemic agents, thanks to advances in molecular biology. Various attempts have been made on prevention and cure but so far, they are still short of being applied in clinical practice. Although immune intervention at diagnosis provides new hope, more efforts and resources are needed to help children and their families to enjoy normal life. The lecture will provide an overview of the current status and highlights the future prospects of diabetes in children and adolescents.

STATE OF THE ART LECTURES

SA1. BARIATRIC AND METABOLIC SURGERY 2010. Abdulmajid Ali, Department of Surgery, The Ayr Hospital, Ayrshire & Arran NHS, Ayr, Scotland, UK

It is well documented that obesity is closely associated with type 2 diabetes (T2D). Recent studies confirmed that bariatric surgery in those with established T2D induced a remission in 73% in the surgical arm as compared with only 13% of the control group.
Patients & Methods: 88 patients with T2D and BMI > 35 (of those 17 patients also suffer from sleep apnea) had different types of bariatric procedures by a single surgeon. Patients with histories of alcoholism, drug misuse, or other serious psychiatric or psychological problems were excluded from this study. Patients were followed up for a period of up to 24 months in 3 monthly clinics run by surgeon, endocrinologist, respiratory physician, psychologist, and dietitian. The remission of T2D was assessed by measuring Hb1Ac, blood glucose, and the need for medications during the 2 yrs post-operative period. Results: The remission of T2D occurred in 73 patients (82%), resolution of sleep apnea in 14 patients (84%), cure, or improvement in hypertension and hyperlipidaemia in 75 % and 80% respectively. Conclusion: Although lifestyle changes including weight loss, regular exercise and eating healthy are the first-line treatments for T2D bariatric surgery, in selected patients, can play a major role in the management of T2D.

SA2. INCRETIN MIMETIC THERAPY: FROM BASIC PHYSIOLOGY TO CLINICAL EXPERIENCE. Abdulfattah A Lakhdar, Whipps Cross University Hospital, London, UK

Insulin resistance and insulin deficiency are recognized elements in the pathogenesis of type 2 diabetes. GLP1 and GIP (intestine derived hormones) deficiency is another important component of the pathophysiology of type 2 diabetes. Deficiency of GLP1 leads to insulin production deficit, excess in plasma glucagon and post prandial hyperglycaemia. Addressing the GLP1 deficiency is a novel and physiological approach to the therapy of type 2 diabetes. The incretin mimetic agent exenatide mimics the endogenous incretin, glucagon like peptide 1 (GLP1), it stimulates glucose dependent insulin release (as opposed to oral insulin secretogogues, which may cause non glucose dependent insulin release and hypoglycaemia), reduces glucagon and slows gastric emptying. Exenatide, the first agent in this

class, is administered by injection twice daily before meals. It is effective in patients who have suboptimal glycaemic control in spite of receiving a sulphonylurea and/or metformin therapy. In addition to improving glycaemic control exenatide has the benefit of causing modest weight loss. Animal tests suggest that this drug prevents beta cell apoptosis and may in time restore beta cell mass. Liraglutide; a true GLP1 analogue with 97% homology to native human GLP1 was recently released. It is administered once daily and at any time during the day. It can be used as monotherapy as well as in combination with other antidiabetic agents. Exenatide LAR, once weekly injection is undergoing phase III trials. Clinical experience with exenatide and to a lesser extent liraglutide established the role of these incretin mimetics as adjunctive therapy to improve glycaemic control in patients with type 2 diabetes who are taking metformin or a sulphonylurea but have not achieved good glycaemic control. Lack of hypoglycemia and associated weight loss are desirable features of these novel agents.

PLENARY LECTURES

PL1. KEY NOTE ADDRESS: THYROTROPIN SUPPRESSION THERAPY IN DIFFERENTIATED THYROID CARCINOMA: RISK ADAPTED STRATEGY.

Salah E. Gerryo, Department of Medicine, Garyounis University, Benghazi, Libya

Thyroid cancer is the most common endocrine cancer and is the fifth most common cancer diagnosis in women. Differentiated thyroid carcinoma (DTC) constitutes 90% of all cases of thyroid cancer. In several countries, there is increased incidence of DTC over the last three decades. The 10 year cancer specific survival rate varies from 81% to 94%.The primary treatment of patients with DTC include total/near total thyroidectomy, ablation of thyroid remnant with radioodine followed by thyrotropin suppression with L-thyroxine. Use of supraphysiological dose of L-thyroxine is the most fundamental systemic therapy in patients with DTC. In several observational studies and meta-analysis, thyrotropin suppression therapy is associated with reduced cancer specific death and recurrence rate particulary in high risk patient group. However there is increased risk of adverse cardiovascular and skeletal effects in patients with exogenous subclinical hyperthyroidism particularly the elderly and postmenopausal women. In an individual patient the target serum thyrotropin(TSH) level should be determined based on the balance between the following factors: (1) The benefit of thyrotropin suppression. (2) Adverse effects and risk of thyrotropin suppression. (3)The risk of death from or recurrence of thyroid cancer based on accepted or validated risk stratification system.(4)Comorbid conditions associated with increased risk of complications from use of supraphysiological doses of L-thyroxine. The recommended optimal serum TSH target(s) in the initial and long term treatment of patients with DTC will be discussed based on published guidelines and expert opinions. The TSH target(s) should be subjected to regular review based on disease status and development of comorbid conditions.

PL2. SETTING UP A SPECIALIZED DIABETIC FOOT CLINIC: THE MANSOURA EXPERIENCE.

Hanan Gawish, Diabetes and Endocrinology Unit, Mansoura University, Egypt hanangawish@mans.edu.eg

Although diabetic foot (DF) is the easiest complication to detect and most successful to prevent, still diabetes is the leading cause of non-traumatic amputation all over the world. As diabetic foot was wrongly overlooked as gangrene, severe infections, and/ or amputation, it was not easy to start setting a DF clinic in our diabetes and endocrine unit. Persuading health care colleagues as well as the hospital management about the importance of DF clinic was not an easy task. Once started in 2005 a rapid evolution of the clinic from “Minimal model foot clinic” to “Centre of excellence” was achieved. This has also been matched with expansion of the clinic area , scope of available services and number of personals as well as the working days of the clinic.

In 2008, through a grant from the World Diabetes Foundation, a national project named “Step by Step-Improving diabetes foot care in Egypt” was launched. This grant covers the training of 30 DF teams, their essential instrumentation, as well as all educational materials. Previous data about decreased rates of major amputation had been reported by similar projects in India, Tanzania, and Pakistan. DF team should be devoted to the idea and well convinced with the quotation written by Harry Truman “It is possible to achieve anything as long as you are not worried who is going to get the credit”. Together with the knowledge acquired from the literature, practical training of members of Mansoura team in Manchester Foot Clinic, UK, and Almelo, Netherlands were received. Lack of certified Podiatrist and Orthotics should not be a barrier. Their roles could be partly taken by both physicians and nurses to overcome their absence in most of our Arab countries. DF team includes Diabetologist, nurses, radiologist, microbiologist, and orthopedic as

well as vascular surgeon. They may not be working in the same setting but referral guidelines can be put to facilitate their communication. Though technology and instrumentations are thought to be of crucial value in the development of DF clinic, yet choosing the personnel with whom you will cooperate to form the first multidisciplinary team is much more important task. The different instrumentation needed in each stage is going to be discussed.
Services introduced by the clinic now include:
• Education of the Patients and other health care providers
• Foot screening and Risk Categorization of patients
• Management of pre-ulcerative pathology as removal of callus and nail trimming
• Integrated management of DF ulcer as debridement, offloading
• Management of Infection
• Therapeutic Foot wear with Custom made insoles facility
• Management of PAD
• Conservative management of Charcot joint
• Post amputation care.

In conclusion, there is no doubt about the value of implementation of foot care services. Being totally convinced by that, Mansoura Diabetic Foot Team is ready to guide any team, who is willing to repeat this initiative anywhere.

PL3.MEDICAL MANAGEMENT OF NEUROENDOCRINE TUMORS. Fellani A. M. Zwei,Regina General Hospital, Regina, Saskatchewan, Canada. fellani55@hotmail.com

Neuroendocrine tumors represent a heterogeneous family of neoplasm; the cells of these tumors are divided into cells types that form glands and others that are diffusely distributed I-e the disseminated diffuse neuroendocrine system. The gastroenteropancreatic (GEPNET) are rare malignancies and frequently diagnosed at late stage with symptoms, which may be related to hormonal secretion or due the tumor bulk.
Surgery remains the treatment of choice whenever possible, but in many situations, only debulking of some of the tumor load will be possible and so another therapy needed for symptoms control. Chemotherapeutic agents will not be discussed her simply because of their limited efficacy in these type of tumors due to the mitotic activity, rate of cell growth and proliferation, the only subgroup at which chemotherapy has some effect are those of poorly differentiated and aggressive behavior.
In this presentation, we will discuss the current medical management and also other medical therapeutic agents under investigations as well as the different markers and diagnostic imaging. An over view of the new drug therapy, their action and possible side effects will also be reviewed.

PL4. LADE ANNUAL LECTURE 2010: MANAGEMENT OF HYPERGLYCEMIA IN HOSPITAL: TIME TO CHANGE OUR PRACTICE! Adela Elamami, Department of Medicine, Faculty of Medicine, Garyounis University, Endocrine Unit, The 7th of October Hospital and Diabetic Center, Benghazi, Libya

There is a growing body of evidence since the start of this century that hyperglycemia increases the morbidity and mortality in hospitalized patients in both general wards and intensive care units (ICU). Measures of persistent hyperglycemia like mean plasma glucose and hyperglycemic index are more predictive of outcome than admission or fasting plasma glucose. In a prospective follow-up study conducted in the medical ICU of 7th October hospital during 2008 there was significant differences in the fasting glucose in those who survived (120.6+/-39SD) v. those who died (143+/-55SD), p= (0.04) , mean all glucose survived 127.3+/-43SD /died 156.2+/-59SD (p= 0.01), number of hyperglycemic events survived 3.2+/-5SD/ died 6.3+/-9SD (p=0.04) but there was no significant difference in the admitting blood glucose. The use of oral antidiabetic agents, the pre hospitalization insulin regimen, or the traditional sliding scale alone are still widely used in most general wards and ICU settings in the Benghazi hospitals.
The goal in both general wards and ICUs is to avoid hypoglycemia and severe hyperglycemia. This can be established with the application of an effective strategy for treatment of hyperglycemia, frequent measurements of plasma glucose and good dietary advice. In non-critically ill patients, scheduled subcutaneous administration of insulin, with basal, nutritional, and correction components, is regarded as the preferred method for achieving and maintaining glucose control. Most recommendations, with the exception of the Canadian ones, have considered that reliance on non-insulin anti-hyperglycemic agents is not appropriate in most hospitalized patient. Pre-meal blood glucose targets should generally be lower than 140 mg/dL (7.8 mmol/L) in conjunction with random blood glucose values lower than 180 mg/dL (10.0 mmol/L). The times of blood glucose monitoring in non-critically ill patients are pre meal and bed time for patients who are eating and every 4-6 hours for those who are not eating to determine the corrective insulin doses.
In critically ill patients, intravenous insulin infusions are the preferred method for achieving and maintaining glycemic

control. Insulin therapy should be initiated for treatment of persistent hyperglycemia, starting at a threshold not greater than 180 mg/dL (10.0 m mol/L) and maintaining a range of 140 -180 mg/d L (7.8 - 10.0 m mol/L). Only in some surgical critically ill patients were levels between 110 and 140 mg/dl (6.1-7.8 mmol/l) may be beneficial.

In view of this convincing evidence and increasing consensus of expert opinion, it is compelling that the evidence and guidelines are translated into clinical practice to be able to achieve the improvement in outcome observed in the clinical trials

ABSTRACTS OF CLINICAL SYMPOSIA

SYMPOSIUM 1: MODERN MANAGEMENT OF DIABETES

S1.1 UPDATE ON DIABETES SCREENING AND DIAGNOSIS Salem Eltabal, Endocrine Unit, Benghazi Medical Centre and Department of Medicine, Garyounis University, Benghazi, Libya

Diabetes is one of the commonest chronic medical conditions and is a major cause of concern to health care services. Diabetes can cause severe complications, affecting the nervous system, the eye, and the kidney and life expectancy is reduced by an average of 7 years. Early diagnosis may help in preventing or delaying such complications. The diagnosis is based on the measurement of plasma glucose levels. The Current criteria for the diagnosis and screening of diabetes are:

1) A 1 c > 6.5%; OR
2) Fasting plasma glucose (FPG) > 126 mg/dl (fasting > 8 hours); OR
3) 2 – Hours glucose per 75 –gm oral glucose tolerance test (OGTT) > 200 mg/dl according to the World Health Organization (WHO) protocol; OR
4) Random glucose (with hyperglycemic symptoms/ crisis) > 200 mg/dl

In the absence of unequivocal hyperglycemia, criteria 1-3 require retesting for confirmation.

Although the oral glucose tolerance test (OGTT) is a valuable tool in research, it is not recommended for routine use in diagnosing diabetes. In the presence of high risk factor(s), screening should be done at any age, and if absent screening should begin at age 45 years, and then every 3 years. Furthermore, the "increased-risk" groups while not meeting the diagnostic criteria for diabetes require close attention and monitoring. Impaired fasting glucose (IFG), or impaired glucose tolerance (IGT) in the range of (> 100 – 125 mg/dl, and > 140 – 199 mg/dl, respectively), or Hb A 1 c range of > 5.7 – 6.4% will identify this group of people. The rationale for using Hb A 1 c as a diagnostic test is that the risk of diabetic microvascular complications (mainly retinopathy) sharply increases in the same way and at a comparable threshold, as compared to FPG and OGTT.

Hemoglobin A1c is not a perfect or ideal test like many other diagnostic tests in clinical medicine. Clinicians should be aware of the potential interference and results should be interpreted in the right context, taking into account any interference that could influence these results.

S1.2 THE STEPWISE APPROACH TO THE MANAGEMENT OF TYPE 2 DIABETES. Salem Beshyah, Department of Endocrinology, Sheikh Khalifa Medical City, Abu Dhabi, UAE

The management of type 2 diabetes mellitus (T2DM) has witnessed major changes over the last couple of decades. These were brought about by two factors (at least). Firstly, a wider range of newer anti-diabetic medications (both oral and injectable) became available as a result of invoking recently understood pathogenetic mechanism (incretin-based therapy) and pharmacological improvements in drugs characteristics (slow release drugs and Insulin analougues). Secondly, There is more realization that early (as soon as possible after diagnosis) and adequate glycaemic control well within therapeutic targets (HbA1c 6.5-7%) pays dividends in terms of reduced macrovascualr and microvascular complications. Patients with type 1 diabetes need to start insulin therapy on diagnosis. However, T2DM is a progressive disease and will consequently need a progressive strategy and dynamic strategy to match the nature and magnitude of the metabolic defect at each specific time of patients "diabetic career." Life style changes and metformin on diagnosis is generally advocated for both obese and non-obese patients due to the vascular protective effects of metformin shown in the UKPDS. The second step is widely different in different guidelines. Patient, provider, and economic factors may justifiably influence making such a choice. Sulphonylureas are cheap and effective in most patients. Risk of hypoglycemia can be reduced by using the appropriate doses and those compounds modified to have a sustained release. In patients with significant insulin resistance, use of the glitazones has been advocated. However, there are some concern related to increased risk of fluid retention, weight gain, heart failure, and fractures. Smaller proportions of patients may be particularly suited for alpha glucosidase inhibitors or the postprandial glu-

cose regulators such as repaglinide and nateglinide though the later group has to be taken shortly before individual meals. The latest additions to our armamentarium are the incretin-based therapies. Both subgroups are advantageous to weight problems. In addition to their reduced hypoglycaemia risk, DDP4-inhibitors are weight neutral and incretin mimetics induce weight reduction whilst improving glycaemic control. Availability of these drugs should not stimulate delay in insulin therapy in the appropriate patients. True basal insulin made it much easier to initiate and advance insulin confidently. In conclusion, the current stepwise approach to the management of type 2 diabetes is based on target-driven rapid advancing from monotherapy to combination oral agents and from basal to intensive insulin therapy and advancing OHA's/Insulin on individual basis. This achieves good enough glycaemic control that can be translated into significant reduction in complications and meaningful improvement in quality of life.

S1.3 INSULIN TREATMENT IN TYPE 2 DIABETES
(No abstract submitted)

S1.4 THE FIVE D'S: DIABETES, DENIAL, DEPRESSION, DEMENTIA, AND DIABULIMIA. Inass Shaltout, Department of Internal Medicine and Diabetology, Faculty of Medicine, Cairo University, Cairo, Egypt

Diabetes has serious mental health repercussions. Most people go through denial when they are first diagnosed with diabetes. "I don't believe it. There must be some mistake," they say. Sometimes denial serves a purpose. It is a way of coping with bad news. It can keep the patient from getting overwhelmed and depressed. Dementia is a clinical syndrome characterized by the insidious onset and slow progression of a cognitive impairment, which impairs at least two areas of cognitive function. Symptoms often develop gradually and show a progressive deterioration in function. Depression is a common and serious disease and by 2020, it will be the second cause of disability worldwide and the first cause of disability in developing countries. Does depression increase the risk for Diabetes? Depression rates are doubled in the presence of diabetes (both type 1 and type 2) and depression increases the risk for diabetes (type 2 in particular). Many studies showed that treatment of depression improves glycemic control. DM is a risk factor for dementia especially Alzheimer's disease which was found to be increased in elderly women with metabolic syndrome. Finally, diabulimia is a serious condition when type 1 diabetics are not taking their insulin in order to lose weight. Diabulimia is a term that has only cropped up in recent years. Most people who experience diabulemia are stuck between two fears: taking increasing doses of insulin, which may lead to weight gain, and the damage the destructive behaviour is causing their body in the long-term. Diabulimia is the practice of lowering or completely omitting insulin as a way of losing weight and staying 'healthy'.

SYMPOSIUM 2: PATIENT EDUCATION AND BEHAVIOR MODIFICATION

S2.1 SMOKING CESSATION: HELPING STRATEGIES AND PRACTICALITIES FOR PHYSICIANS. Abdurezag Kdesh, Department of Internal Medicine, Tawam Hospital, AlAin, UAE

Tobacco Addiction is the leading avoidable cause of disease and premature death in the world. Second-hand smoke is a much greater problem than many people realize. The mixture of exhaled smoke contains more than 4000 substances, more than 40 of which are known to cause cancer in humans and animals. Water-pipe tobacco use appears to be increasing in the Middle East region, especially in youth and University students. It's a more acceptable form of tobacco for females. It is falsely perceived to be safer than smoking cigarettes. There is some evidence of increased risk of heart disease. .
Why do smokers keep smoking? Nicotine is the chemical in tobacco that keeps smokers smoking. It can be as addictive as cocaine and heroin. Tobacco dependence involves psychological as well as physical factors. Pharmacological therapy includes Nicotine Replacement Therapy, Bupriopion, and Varnicline. Each at least doubles quit rates vs. placebo. Cessation rates are higher when counseling is added to drug treatment. Hospitalized smokers represent a "window of opportunity." Smoke-free hospitals require temporary abstinence from tobacco. Illness motivates smokers to try to quit. Interventions can help them to succeed.

S2.2 SCHOOL-BASED INTERVENTION HEALTHY LIFESTYLE PILOT STUDY TO PREVENT NON-COMMUNICABLE CHRONIC DISEASE RISK FACTORS IN SOUSSE, TUNISIA. Imed Harrabi, Department of Preventive Medicine and Public Health, Faculty of Medicine of Sousse, Tunisia

Background: Integrated actions against selected risk factors (i.e., smoking, physical inactivity and unhealthy diet) can lead to the reduction of major chronic diseases. Objective: To implement and evaluate a school – based intervention program to prevent non-communicable chronic disease risk factors among children.
Methods: Design: Pre – test Post – test quasi experimental design with a control group. Setting: 4 secondary schools in Sousse, Tunisia. Intervention: The overall intervention program lasted for a school – year and incorporated educative actions concerning tobacco use, physical activity and healthy diet. Results: Globally, Knowledge, behaviours and intentions concerning smoking improved in both groups between baseline and the end of the study, particularly in the intervention group.
Nutrition knowledge, behaviours and intentions improved in both groups between baseline and final stage, particularly in intervention group. At the final stage, there was an increase in the proportion of children walking to and from school in intervention group. There was also an increase in the percentage of children with intention of practising sport in the future particularly in the intervention group.
There were no significant differences in BMI after the intervention neither in intervention nor in control groups. At the end of the study, the incidence of overweight and obesity was similar to that at baseline. Conclusions: This pilot study has demonstrated the potential of school as a suitable setting for the promotion of healthy lifestyles in children. The study resulted in substantial improvements concerning knowledge, behaviours and intentions in the intervention group.

S2.3 DIABETES EDUCATION IN LIBYA: PRESENT AND FUTURE! Soad Bosseri, Department of Diabetes and Endocrinology, Tripoli Medical Center, Tripoli, Libya

Education is the cornerstone of the management of diabetes. However, its state in Libya is still poor; most people with diabetes are managed by physicians who lack time and resources of specialized team in diabetes education. Added to that, it is not common practice to read health books and magazines, or websites, and also there is not much in TV channels. Therefore, information is provided mostly by inexperienced people who have many myths and misbelieves about diabetes. The need for structured diabetes education is being recognized by the physicians treating the patients and by the government sectors and there is strong will to train healthcare professionals in diabetes education. The first steps were implemented by a program leading to qualification in diabetes education; this program is focused on enhancing diabetes knowledge, skill development, behavior change, and teamwork. It is based on the International Curriculum for Diabetes Health Professional Education, which is adopted according to the culture of the Libyan society and is designed to be delivered in interactive manner by using variety of educational tools. The tutors were among the world experts in the field and the trainees were recruited from all the regions of the country. The efficacy of the training program has showed good results after short time. Most of the trainees were able to make changes; they opened patient diabetes education services, participated in developing educational materials in Arabic that is related to the local cultures, investigated the obstacles, and suggested solutions. They also worked as a group to facilitate, coordinate, and evaluate the education in order to provide effective diabetes care. The preliminary reports suggest that this diabetes education initiative has a profound power as a tool of future high standard national structured diabetes education.

SYMPOSIUM 3: DIABETIC FOOT

S3.1 DIABETIC FOOT SCREENING AND TREATMENT GUIDELINES. Sami Tabib, Imperial College London, Diabetes Center, Abu Dhabi, UAE

The pedal manifestations of diabetes are well documented, and potentially limb and life threatening. Recognition of risk factors and treatment of diabetic foot disorders require the skill to diagnose, manage, treat, and counsel the patient. All patients with diabetes require a foot examination whenever they present to any health care provider, and they should receive a thorough lower extremity examination at least once annually. Patients with complaints relating to the diabetic foot require more frequent detailed evaluations. This examination should include assessment of protective sensation, foot structure and biomechanics, vascular status, and skin integrity. Diagnostic procedures, such as laboratory testing, imaging studies, vascular and neurologic evaluation, and plantar foot pressure assessment, may be indicated in the assessment and care of the diabetic foot.
Risk identification is fundamental for effective preventive

management of the foot in people with diabetes. This enables the physician to design a treatment plan and determine whether the patient is at risk for ulceration or amputation. Diabetic patients at risk for foot lesions must be educated about risk factors and the importance of foot care, including the need for self-inspection and surveillance, monitoring foot temperatures, appropriate daily foot hygiene, use of proper footwear, good diabetes control, and prompt recognition and professional treatment of newly discovered lesions. Patients with neuropathy or evidence of increased plantar pressure may be adequately managed with well-fitted walking shoes or athletic shoes. Patients should be educated on the implications of sensory loss and the ways to substitute other sensory modalities (hand palpation, visual inspection) for surveillance of early problems. Patients with a history of ulcers should be evaluated for the underlying pathology that led to the ulceration and be managed accordingly. Ulceration is the turning point in diabetic foot disease. Once an ulcer develops, it must be managed aggressively. Wound care, management of infection, presence of adequate vascular supply, debridement, and offloading the ulcer area, are all essential factors in wound healing. Wounds that do not show signs of healing within four weeks need to be reassessed.

Finally, Integration of knowledge and experience by a multidisciplinary team approach promotes more effective treatment, thereby improving outcomes and limiting the risk of lower extremity amputation.

S3.2 DIABETIC FOOT INFECTIONS: ANTIMICROBIAL THERAPY

Mamdouh R. El-Nahas, Diabetes and Endocrinology Unit, Mansoura University, Egypt drmamdouh@mans.edu.eg

Foot infection is a common and serious complication of diabetes mellitus, and contributes to the development of gangrene and lower extremity amputation. Diagnosis of infection can be easily established clinically based on the presence of classic signs of inflammation. Simple clinical data can also suggest the most probably incriminated pathogens. Knowing the most likely presumed pathogens is essential to select the appropriate antimicrobial therapy. There are apparent differences in the microbiology of diabetic foot infections (DFIs) between developed and developing countries. Many physicians can participate in the management of mild DFIs through early detection of cases and prompt use of the appropriate antibiotic therapy. However, treatment of DFIs often requires a multidisciplinary foot care team. This presentation will summarize the clinical presentation, bacteriology, and empirical antimicrobial therapy for diabetic foot infections.

S3.3 THE ROLE OF A SURGEON IN DIABETIC FOOT. Ahmed Abidia, General and Vascular Surgery, The Princess Alexandra Hospital, Harlow, UK

The diabetic foot is a complex condition, which can lead to serious complications. It is estimated that an individual with diabetes has a 15-25% risk of developing a foot ulcer during their lifespan and 14-24% of those patients will require an amputation at some stage. Management of the diabetic foot requires a multi-disciplinary approach, with input from a diabetologist, a podiatrist, an orthotist, a vascular surgeon and an orthopaedic surgeon. There is strong emphasis on preventative measures and on patient education. Good understanding of the underlying pathophysiology is essential for a successful outcome. The International Working Group consensus document on the management of the diabetic foot established the following six approaches as treatment modalities supported by clinical trials or well-established principles of wound healing; off-loading, management of infection, debridement, appropriate dressings, vascular reconstruction, and adjunctive medical therapy. The contribution of the surgeon in assessing patients and delivering the above treatment modalities is crucial in the management of the diabetic foot.

SYMPOSIUM 4: CLINICAL DIABETES AND ENDOCRINOLOGY IN YOUNG PEOPLE

4.1 PITFALLS IN THE DIAGNOSIS OF CHILDHOOD DIABETES. Salah Al-Hasi, Department of Endocrinology, Al-Fatah Children Hospital, Benghazi, Libya

Type 1 Diabetes (T1D) is a life-threatening condition resulting from an autoimmune destruction of the B-cells of the pancreas in genetically susceptible individuals. T1D usually progress to diabetic ketoacidosis (DKA) if the diagnosis is delayed or misdiagnosed, particularly in younger children who have a more rapid destruction of the B-cells with rapid progression to DKA. Polyuria and polydepsia are the cardinal symptoms of T1D, and are the key to the diagnosis even to lay people, and by far, T1D is the commonest cause of polyuria & polydepsia in children. However, from our experience, most parents of children with newly diagnosed T1D were not alarmed or concerned about these symptoms (in T1D polyuria and polydepsia are usually not told to the doctor if you are told you are really lucky) Geek 1980. As a result, T1D and DKA were misdiagnosed as urinary tract infection, GI illness, and in some cases of DKA

presenting with nausea, vomiting, and hyperventilation (kussmal breathing), appendicitis, asthma, and pneumonia were the primary diagnosis that will increase the risk of complications as a result of untreated DKA and its metabolic derangements. This presentation will focus mainly on explaining why the diagnosis of diabetes in children is often missed or misdiagnosed, and to remind ourselves always with these pitfalls so that T1D is diagnosed early and treated properly.

In conclusion, misdiagnosis of new onset type 1 DM leads to waste of resources, unnecessary investigations, exposing patients to side effects of wrong medications, also it gives the parents a satisfaction and a false sense of security and this will result in more delay in diagnosis and seeking another medical advice.

S4.2 UPDATE ON MANAGEMENT OF DKA IN CHILDREN. Ahmed Shamekh, Department of Pediatric, Princess Royal University Hospital, Faronbourgh, UK

Diabetic Ketoacidosis (DKA) is a medical emergency and represents life-threatening metabolic derangement that requires prompt recognition and appropriate treatment, with careful monitoring of clinical and biochemical indices. The incidence of type 1 diabetes mellitus (T1DM) increasing all over the world especially in children's below 5 years of age. DKA occurs in 15-67% of patients with newly diagnosed T1DM and has a frequency of 1-10 % per patient per year in those with established diabetes. DKA is the leading cause of morbidity and mortality in children with type1 diabetes mellitus. Mortality is predominantly related to the occurrence of cerebral edema. This occurs in about 0.3-1% of all episodes of DKA. Recent reports from UK and USA has shown that the mortality is 24% and 35% morbidity in patients who develop this complication. The pathophysiology of cerebral edema is poorly understood. There is agreement that prevention of DKA and reduction of its incidence should be a goal in managing children with Diabetes.

S4.3 CHILDHOOD OBESITY: A CHALLENGE FOR LIBYA. Adel El Taguri, Pediatric Department, Benghazi Medical Center, Libyan International Medical University, Benghazi, Libya

Nutrition is a fundamental condition for health. While under-nutrition contributes to more than half of deaths among under-five in developing countries, most industrialized countries as well as countries in transition face an unprecedented pandemic of obesity even among children. Along with this upward secular trend, the prevalence of type 2 diabetes increases in these countries and continues to climb. In addition, current patterns of overweight and obesity could account for 14% of all deaths from cancer in men and 20% of those in women. In Libya, overweight among under-five and school age children mounts to 16%. Similar findings are reported in other countries in the region. While the prevalence of overweight is higher among females in school age children than in males, diabetes shows two-fold higher incidence in females in the 15-34 years old age group. Cardiovascular diseases are already the most common cause of death among adults in Libya. Management is multidisciplinary and should be performed at different levels. The objective of management should include modest reduction and improvement of intake and modification of habits to promote a healthy, exercise-oriented lifestyle. In addition, studies are pointing towards the importance of gestational weight gain as the single most effective preventive measure. The importance of comprehensive approach and establishing a national nutritional policy should not be overemphasized.

SYMPOSIUM 5: UPDATES ON THYROID AND PARATHYROID DISEASES

S5.1 MANAGEMENT OF ASYMPTOMATIC PRIMARY HYPERPARATHYROIDISM IN 2010. Muftah Esaeiti, Garyounis University, Benghazi, Libya

The most common clinical presentation of primary hyperparathyroidism is asymptomatic hypercalcemia detected by routine biochemical screening. However, the presentation may be atypical and include a spectrum of disturbances in calcium homeostasis, ranging from symptomatic severe hypercalcemia (parathyroid crisis) to normocalcemic primary hyperparathyroidism. There are geographical differences in the clinical manifestations of hyperparathyroidism that may be explained, at least in part, by ascertainment bias or vitamin D nutrition. Biochemical screening tests that include measurements of serum calcium currently account for the identification of at least 80 percent of patients with primary hyperparathyroidism in western countries. The widespread identification of asymptomatic individuals raises the question of if, and when, these individuals should undergo surgery. Although most asymptomatic patients do not have progression of disease, as defined by worsening hypercalcemia, hypercalciuria, bone disease, and/or nephrolithiasis, some individuals do progress and would benefit from surgical cure. Thus, the primary goal is to identify the

asymptomatic individuals at risk for disease progression, as well as those who have features of the disease that may improve following parathyroidectomy. These two groups of individuals would likely benefit from surgical intervention.

S5.2 DRUG-INDUCED THYROID DYSFUNCTION

Abdulwahab M Suliman, Endocrinology Department, Our Lady of Lourdes, Drogheda, Ireland

In UK, approximately 10 million thyroid function tests performed annually. Many patients who are tested, including those who have or receiving treatment for thyroid disease are taking other medications for different clinical conditions. Most of these drugs cause alteration in the thyroid function without any significance clinical problems. Drugs can interfere with the production, secretion, transport, and metabolism and on absorption of thyroid hormones. As a result clinician should be aware of the interactions between various drugs and thyroid function test. In clinical practice, amiodarone and lithium could cause significant clinical thyroid dysfunction.

Among the drugs affecting the thyroid gland, no drug has puzzled and at the same time fascinated endocrinologist than amiodarone. Amiodarone is a potent class III anti-arrhythmic drug; it is very rich in iodine with 100 mg tablet containing an amount of iodine that is 140 times the recommended daily iodine requirement. Amiodarone causes changes in thyroid function test in euthyroid patients through inhibition of 5`-deionise activity. In 14-18% of patients treated with amiodarone developed amiodarone induced hypothyroidism (AIH) due to failure to escape from the acute Wolff-Chaikoff effect or amiodarone induced thyrotoxicosis (AIT) either due to excess iodine-induced thyroid hormone synthesis in an abnormal thyroid gland (type I AIT) or to amiodarone-related destructive thyroiditis (type II AIT). Both AIH and AIT may develop in either apparently normal thyroid glands or in glands with pre-existing clinically silent abnormalities. In contrast to AIH, AIT is a difficult condition to diagnose and treat. Follow-up strategy should be planned for patients treated with amiodarone.

One in 200 people receive lithium for treatment of bipolar disorder. The common side effects of Lithium treatment are goitre, hypothyroidism, increases pre-existing thyroid autoimmunity and it may cause hyperthyroidism. Lithium could be used as an adjunct therapy in the management of sever hyperthyroidism.

S5.3 SUBCLINICAL HYPOTHYROIDISM: TO TREAT OR NOT TO TREAT?

Fathi Abourawi, Diabetes and Endocrinology, Diana Princess of Wales Hospital, Grimsby, UK

Subclinical hypothyroidism is defined as an elevated serum Thyrotropin (TSH) in the setting of normal thyroid hormone levels. It is relatively prevalent in the general population and with the wide spread use of thyroid tests it is commonly encountered by physicians. Subclinical hypothyroidism is commonly caused by autoimmune chronic thyroiditis, other causes include other forms of thyroiditis, post radioiodine therapy, post thyroidectomy and it may be drug induced. Subclinical hypothyroidism has potential adverse clinical consequences that may influence cardiovascular disease risk. Furthermore, it may progress to overt hypothyroidism. Unfortunately, there are still unresolved clinical issues regarding screening, evaluation, and management of the condition.

The natural history, clinical manifestations, and indications of therapy will be reviewed.

ABSTRACTS OF FREE COMMUNICATIONS

ORAL COMMUNICATIONS

OC 1 LIPID SCREENING IN 100 PEDIATRIC PATIENTS WITH TYPE 1 DIABETES.

Sana Shadeed, Salha Gliwan , Faten Ben Rajab, Endocrine Clinic, Tripoli Children's Hospital, Tripoli, Libya.

Background: Recent observational studies in USA and Europe indicated that dyslipidemia is prevalent in children and adolescents with T1DM and that the risk of CVD during adult life is increased in diabetics with disturbed lipid levels during childhood. However, data on lipid profile of Arabic children with T1DM are sparse.

Aims: To screen for abnormal lipid profile in100 children with T1DM attending a single diabetes clinic and to know its relationship to age, sex, BMI, as well as diabetes control and duration.

Material & Methods: This cross sectional study was conducted in Tripoli children hospital between January 2008 and December 2009. Fasting total cholesterol (TC), triglycerides (TG)), Low density lipoprotein (LDL), and high density lipoprotein (HDL) were measured in 100 boys and girls less than 18 years of age with T1DM. *t* student test for independent samples was used to compare lipid profile to age, gender, BMI, HbA1c, and duration of diabetes mellitus. **Results:** 33 % of our patients have disturbed lipid levels of which low HDL (13%) was the commonest. The rest

were as follows: high LDL (9%), high TG (6%), and high TC(5%), Dyslipidemia was higher among children aged more than 10 years (56%), as compared to younger age group (44%), p=0.001 and in females than males (59% versus 41%) giving a female to male ratio of 1.4: 1(p=0.072). HbA1c was significantly higher in patients with high TG (mean HbA1c=11.9%) than in those with normal TG level (mean HbA1c=9.2%) P =0.024. However, HbA1c did not correlate significantly with; LDL level (P value=0.222), HDL level (P =0.144) cholesterol level (P =0.738). There was no significant correlation between the lipid profile and BMI or duration of diabetes (p=0.059). **Conclusion:** This is the first data on lipid profile in Libyan children with T1DM. Abnormal lipid levels were detected particularly in females and those with poor diabetes control. Larger study is needed to provide results that are more informative.

OC2. STATIN- INDUCED RHABDOMYOLYSIS IN A LIBYAN DIABETIC PATIENT: A CASE REPORT. Elhemri Maisoon[1] ,Lebreki Tahani[1] and Elmehdawi Rafik [1,2], [1]Medical department- diabetes and endocrinology unit-7th of October hospital, [M]Medical Department-Medical Faculty-Garyounis University

Introduction: Rhabdomyolysis is a disorder of rapid muscle damage due to muscle necrosis. The condition has multiple causes and the clinical picture varies from asymptomatic elevation of muscle enzymes to a life threatening acute renal failure and severs electrolyte disturbances. Statins, which are frequently prescribed and well tolerated by diabetics, have been rarely associated with rhabdomyolysis. We report on the first Libyan patient with Statin-related rhabdomyolysis. **Case presentation:** A sixty-year old Libyan male with type 2 diabetes, hypertension, and coronary heart disease presented to our hospital with 7 days history of non traumatic progressive painful lower limbs weakness. There was no swelling, color changes, or skin rash of both limbs. He has reduced urine output, but there was no dysuria or fever. He has been on premixed insulin, ACE inhibitors, beta-blockers, nitrates, aspirin, and clopidogrel. Simvastatin was started 3 days before onset of symptoms. His investigation revealed creatinine kinase: 9545 IU\L, lactate dehydrogenase: 2835 IU\L, urea 188 mg\dl, creatinine 4.1 mg\dl potassium 6.4 mg\dl. Few hours later, the symptoms progressed to involve the upper limbs. Despite aggressive intravenous fluid and antihyperkalemic therapy, his condition deteriorated to complete paralysis and he died within 30 hours after presentation. **Conclusions**: Although statins are generally safe, physician should always be cautious and patients should be informed to urgently seek medical advice if they developed muscle pain or changes in urine color while on statins. Further studies are needed to identify individuals at risk to develop serious complications from its use.

OC3. PATTERN OF REFERRAL OF CHRONIC RENAL FAILURE: THREE YEARS SINGLE CENTER STUDY EXPERIENCE Badreddin Shaibani, Khairi Ayad, Maysa Fayez, , A. Kesheem, Nephrology Department, Zahra Hospital, Libya

Background: Chronic renal failure (CRF) is a major health problem worldwide especially in developing countries due to its burden on economic and health resources. Early diagnosis and referral to specialized centers for management can delay the progression to end stage renal diseases (ESRD). Patients & **Method**: This study was conducted in the nephrology and dialysis department at Zahra hospital-Libya during a period of three years on CRF patients referred for admission to start dialysis. Data were retrospectively collected from patients' files and were analyzed with SPSS. **Results**: A total of 763 patients of CRF were identified and 63% were males. The mean age 53+2.0 years and the most frequent age group was 51-60 years (57 %). The main etiology in this series was diabetic nephropathy (43%), other defined causes are hypertension in 17.1%, chronic pyelonephritis in 21.7%, PKD in 5.2%, and the cause could not be established in the remainder (13%). On presentation, laboratory data showed a mean blood urea nitrogen levels greater than 100 mg/dl in 63% of patients, serum creatinine greater than 10 mg/dl in 59% and haemoglobin <10 g/dl in 79%. Over three quarters (76%) of the referrals were from other hospitals and clinics and only 24% were planned referrals. Sixty three percent of the patients were treated with hemodialysis and out of these 24% needed urgent dialysis due to uremic state or metabolic reasons. In the diabetes sub group (n= 328), the main age group was 46-60 years, they were men206 and 122 women and had diabetes for more than 10 years. The majority (77%) has T2DM, 88.4% were hypertensive, and 62% had hyperlipidaemia. **Conclusions:** Diabetic nephropathy is the commonest cause of ESRD in our series. The clinical and biochemical states of patients at admission suggested a late diagnosis and /or referral to nephrology and dialysis department. The high number of patients with unknown etiology could be related to limited diagnostic facilities in their hospitals. We recommend early referral of patients with renal failure to prevent ESRD .

OC4. THE SECRETION OF RANTES (REGULATED UPON ACTIVATION NORMAL T CELL EXPRESSED AND SECRETED)/CHEMOTATIC CHEMOKINE LEGAND 5 (CCL5) DURING ENTEROVIRUS INFECTION OF ISOLATED HUMAN PANCREATIC ISLET AND HUMAN ISLET DERIVED CELLS. **Asma Elshebani[1,3]; Erik Ålin[2]; Torsten Tuvemo[1]; Olle Korsgren[2] and Gun Frisk[1], [1] Department of Women's and Children's Health, [2]Division of Clinical Immunology, Akademiska Hospital, Uppsala University Akademiska Hospital, Uppsala University, Uppsala, Sweden, [3]Department of Infectious diseases, Faculty of Public Health, Garyounis University, Benghazi, Libya**

Introduction: Type 1 diabetes (T1DM) results from islet β-cell death probably induced by an autoimmune mechanism. Enterovirus (EV) infections have been associated with the pathogenesis of T1DM and it has been shown that EVs can infect human islets both *in vitro* and *in vivo,* although the mechanism involved in virus induced β-cell destruction in still not clearly understood.

Method: We have infected human pancreatic islet, islet derived cells (IDC) and pancreatic exocrine tissue with strains of EV to study degree of virus replication and degree of cytopathic effect (CPE)/islet degradation. The induction/secretion of the chemokine RANTES (Regulated on Activation, Normal T-cell Expressed) was studied in human islets and in IDC infected with strains of EV. The effects of treatment of human islets with nicotinamide (NA) on viral replication, degree of CPE/islet destruction and RANTES induction/secretion have also been studied.

Results: All strains of EV except the VD2921 strain caused CPE and/or islet destruction when human islets and IDC were infected. Only the Coxsackievirus B-4 strain V89-4557 caused CPE in the exocrine cells. RANTES content of the culture medium of infected IDC did not differ from that of the controls. EV infection of human islets caused a reduction of the secretion of RANTES. When human islets were cultured with the addition of NA the secretion of RANTES were increased in infected as well as uninfected islets. **Conclusions:** these EV strains revealed tropism from both human islets and IDC but only one of them for the exocrine cells. Only in islets, the infection caused a reduced secretion of RANTES. Addition of NA to infected and uninfected islets increased RANTES secretion.

OC5. HISTOPATHOLOGY OF THYROID NODULES: A STUDY OF 300 THYROID LESIONS AT DERNA, LIBYA. **Hamad Rafe[1], Ahmed El Komati[2] And Mohamed Algabsi[1], Surgery Department, Alwahda Hospital, Derna Faculty Of Medicine, Omar Almukhtar University[1], Surgery Department, Faculty Of Medicine, Elmergeb University[2], Libya**

Objective: To determine various thyroid disorders manifesting as thyroid nodule and to evaluate the histo-morphology of these lesions. **Methods:** A total of 300 patients with clinically thyroid nodules admitted to surgery department at Alwahda Hospital, Derna, Libya, 2006- 2008 were included in the study. Thyroid function tests were initially performed. Subsequently, thyroid ultrasound and fine needle aspiration (FNA) of the thyroid nodules were performed exclusively for all euthyroid patients with normal TSH. Postoperative histopathological examinations were done for all patients. **Results:** Out of 300 patients with age ranging between 24 and 62 years, 80% were females. Two hundred (66.6%) patients were euthyroid, 60 (20%) were hyperthyroid and 40 (13.4%) were hypothyroid. Thyroid ultrasound showed multinodular goiter in 72 (36%), solid nodules in 70 (35%), cystic nodules in 52 (26%) and diffuse enlargement in 6 (3%) patients. FNA showed that 86% of cases were non neoplastic and 14% were neoplastic. Among the neoplasms, 2% were malignant papillary carcinoma and 12% were benign follicular neoplasms. Lobectomy were done to 169 cases (82 cases right, 41 cases were left and 46 cases were isthmusectomy), and total thyroidectomy in 6 cases. Histopathology examination showed that multinodular goiter was the commonest non-neoplastic lesion representing 36% of all cases, adenometous nodules 26%, colloid cysts 8%, Hashimoto 6%, hyperplastic nodules 5%, toxic nodules 5%, and lymphocytic thyroiditis in 4% of cases. In neoplastic lesions, papillary carcinoma was the commonest malignant representing 1% and benign lesions were diagnosed as follicular adenoma representing 19% of cases. A female preponderance was seen for both non neoplastic and neoplastic conditions. The nodules involved the right side more commonly than the left. **Conclusions:** Thyroid nodules are extremely common especialy multinodular goiter and are frequently benign. For the most accurate diagnostic approach FNA biopsy should be done.

POSTERS PRESENTATIONS

P4. LATE PRESENTATIONS OF PRIMARY HYPERPARATHYROIDISM

Muftah S Esaeiti, Tawfik A Abuzaloot, Garyounis University, Benghazi, Libya

Introduction: Primary hyperparathyroidism (PH) is a rare and asymptomatic condition that is mainly diagnosed by laboratory data. Radiology is used only for tumor localization rather than for diagnosis. The condition is managed surgically and the outcomes depend on the surgeon's skills. **Methods**: We present the clinical details, laboratory and radiological findings, management and follow-ups of 11 patients with PH in Benghazi, Libya. **Results**: Nine (82%) were females, age range (21-53 years), 7 (64%) presented with proximal muscle weakness, 8 (73%) bone pain, 6 (66%) fracture, 1 (0.1%) jaw cyst, none presented with renal stones. All patients had a classical biochemical picture of high parathyroid hormone (PTH), hypercalcemia, and high alkaline phosphatase. All patients had a single parathyroid adenoma by Ultrasound scanning of the neck. Of these, five were on the right side and six were on the left side. Traditional 4-gland neck exploration was performed in all patients with successful parathyroidectomy and no local postoperative complications. Serum PTH was very low at 2 hours postoperatively. Ten patients (91%) developed hungry bone syndrome. All patients recovered completely within a mean duration of 7 months. **Conclusions**: All patients had successful parathyroidectomy without any surgical complications. The advanced hyperparathyroidism bone disease and the development of hungry bone syndrome indicated a major delay in presentation of our patients. This calls for more vigilance with measurements of serum calcium in larger numbers of patients with nonspecific symptoms.

P5. THE CLINICAL AND COST EFFECTIVENESS OF BEE HONEY DRESSING IN THE TREATMENT OF DIABETIC FOOT ULCERS.

A. M. Moghazy[(1)], M. E. Shams[(2)], O. A. Adly[(3)], A. H. Abbas[(1)], M. A. El-Badawy[(3)], D. M. Elsakka[(4)], S. A. Hassan[(5)], W. S. Abdelmohsen[(6)], O. S. Ali[(7)], B. A. Mohamed[(7)].[(1)] Lecturer of Plastic Surgery, [(2)] Associate-Professor of General Surgery,[(3)] Associate-Professor of Plastic Surgery, Shebeen El-Koom, [(5)] Professor of General Surgery, [6)]Specialist of Surgery, [(7)] Assistant-Lecturer of Plastic Surgery, Faculty of Medicine, Suez Canal University, Ismailia, Egypt. [(4)] Lecturer of Plastic Surgery, Faculty of Medicine, Menofia University, Egypt

Introduction: Honey is known, since antiquity, as an effective wound dressing. Emergence of resistant strains and the financial burden of modern dressings have revived honey as cost-effective dressing particularly in developing countries. Its suitability for all stages of wound healing suggests its clinical effectiveness in Diabetic foot wound infections.
Aim: To assess the effectiveness of honey dressing in the healing of diabetic food wound infection
Method: Thirty infected diabetic foot wounds were randomly selected from patients presenting to Surgery Department, Suez Canal University Hospital, Ismailia, Egypt. Honey dressing was applied to wounds for three months till healing, grafting or failure of treatment. Changes in grade and stage of wounds, using University of Texas Diabetic Wound Classification, as well as surface area were recorded weekly. Bacterial load was determined before and after honey dressing. **Results**: Complete healing was significantly achieved in 43.3% of ulcers. Decrease in size and healthy granulation was significantly observed in another 43.3% of patients. Bacterial load of all ulcers was significantly reduced after the first week of honey dressing. Failure of treatment was observed in 6.7% of ulcers. **Conclusions:** This study proves that commercial clover honey is a clinical and cost-effective dressing for diabetic wound in developing countries. It is omnipresence and concordance with cultural beliefs makes it a typical environmentally based method for treating these conditions.

P6. ACROMEGALY IN BENGHAZI

[1] Najat Buzaid, [2] Ahmad Swalem, [1]Department of Internal Medicine, 2. Department of Endocrinology, Garyounis University, Benghazi, Libya

Introduction: Acromegaly is a serious medical disorder resulting from unrestrained secretion of growth hormone. The long effects of sustained excess of growth on metabolism and cardiovascular system are of deleterious effects and included diabetes mellitus, arterial hypertension, heart disease and risk of malignancy. **Objectives:** To describe demographic data, clinical features, laboratory and radiological aspects, treatment aspects and outcome of patients with acromegaly in benghazi. **Patients and methods:** Eight patients with acromegaly in Alsabri clinic and Aljameheria endocrine clinic during the period between 1992 and 2006 were studied retrospectively. **Results:** The demographic data, clinical features were similar in many aspects to those reported by other authors. Five patients had pituitary macroadenoma and three had pituitary microadeoma. Oral glucose tolerance test was done three patients, random blood

growth hormone level was done in 5 patients and IGF-1 was done in three patients. More than one test was done in three patients. Other anterior pituitary hormones were performed in all patients; they were abnormal in three patients; one had high prolactin, one had low gonadal hormones and one had low gonadal hormones and thyrotropin. MRI pituitary fossa was the diagnostic imaging used in five patients. Bromocriptin was the only medical treatment used, and it was given to three patients they all have normal prolactin level and no response was reported regarding biochemical and radiological aspects. Surgical treatment was offered in half of patients by transsphenoidal approach and they were operated outside Libya. One patient with microadenoma was normalized biochemically and had no radiological evidence of tumor recurrence for ten years. One patient with maroadenoma continued to have high GH and tumor recurred after surgery within one year and treatment with pegvisomant was planned. No post surgical complications were documented. The forth patient was lost to follow up. No one was referred for radiotherapy.

P7. MARKERS OF PREMATURE ATHEROSCLEROSIS IN NON-DIABETIC OFFSPRINGS OF TYPE 2 DIABETIC PATIENTS.EI-Naggar YA, EL-Naggar IZ[1], Libda IA[2], Internal Medicine, Biochemistry[1] and Diagnostic Radiology[2] Departments, Faculty of Medicine, Zagazig University

Background: First-degree relatives of type 2-diabetic subjects are genetically prone to develop clinical disease. They have been shown to exhibit a high prevalence of glucose intolerance, hyperinsulinemia, and insulin resistance that may precedes the diagnosis of diabetes by decades. The insulin resistance syndrome that precedes the onset of overt diabetes is associated with metabolic alterations and abnormalities in homeostasis. The cluster of cardiovascular risk factors in the prediabetic state may explain the high prevalence of cardiovascular disease present at time of diagnosis of overt disease. **Aim :** To detect premature atherosclerosis in non-diabetic (normal and impaired glucose tolerant) offsprings of type 2 diabetic patients. **Subjects and Methods:** 125 subjects were included in this study (done in Zagazig University Hospitals). they were divided into two main groups; group I: included 25 apparently healthy subjects with no history of DM, Group II: included 100 non diabetic offsprings of type 2 DM patients, they were classified according to glucose tolerance test into: Group IIa; included 50 normal glucose tolerant subjects, Group IIb; included 50 impaired glucose tolerant subjects. All participants were subjected to full clinical examination, routine laboratory investigations, specific investigations including lipid profile, fasting insulin, insulin resistance, measurement of Lipoprotein (a) [Lp(a)] by enzyme immunoassay and carotid intima media thickness (CA-IMT) by ultrasonography. **Results:** Comparing patients and control groups showed statistically significant differences Iin plasma levels of fasting and postprandial glucose, fasting insulin, glycosylated hemoglobin, cholesterol, triglycerides and Lp (a) as well as homeostasis model assessment index and CA-IMT.

P8. MEAN MENOPAUSAL AGE OF PATIENTS WITH TYPE 2 DIABETES ATTENDING BENGHAZI DIABETIC AND ENDOCRINE CENTER AND FACTORS AFFECTING IT. A. Elamami MD , N. Elalagy , Selima .Zubi , Ibtesam E lhasi , Department of Medicine, Faculty of Medicine ,Garyounis University , Endocrine Unit , The 7th of October Hospital , Benghazi Diabetes and Endocrine Center , Benghazi , Libya

Background: many factors had been studied regarding their effect on natural menopause as well as menopause in women with diabetes, either type 1 or type 2. **Objective:** to determine mean menopausal age of type 2 diabetic patients attending Benghazi Diabetic and Endocrine Center and the effect of family history of diabetes , autoimmune disease, or premature ovarian failure, history of OCP use, smoking history, duration of diabetes, number of pregnancy , and history of lifelong irregular cycle on it. **Patients and Methods**: A cross sectional study during 2009 including type 2 diabetic females who are menopausal , assed regarding their age , duration of diabetes , age of menopause , age of menarche , history of life long irregular cycles , history of oral contraceptive use , history of smoking " passive ,active" , family history of diabetes or autoimmune disease or POF, and premature menopause , and number of pregnancies .Data were analyzed using SPSS version 17 using T test , mean and stander deviation and linear regression model. **Results :** 179 patients were included , mean menopausal age was 48.05+/-6.5 , there was no significant difference of mean menopausal age between patients who had OCP use 47.2 +/-6.6 and those who were not 48.7+/-6.3 , p=0.1), and patients with history of life long irregular cycle 46.2+/-5.8 and those who were not 48.2+/-6.5 ,p=.26) ,also patients with history of passive smoking 47.9+/- 7.1 and those without 48.4+/- 4.7 p= 0.6 , (only one patient had history of active smoking) , and also no difference between patients with family history of diabetes 48.2+/- 5.8 , and without 47.4 +/- 8.6 p= 0.5 , there was significant difference in the mean menopausal

age between patients with personal or family history of autoimmune disease 45.2+/- 10.9 and those without 48.7 +/- 4.7 p= 0.005) , also patients with family history of POF or premature menopause 45.1+/- 10.6 , and without 48.4+/- 5.7 p=0.03 . Linear regression model was estimated with an inclusion criterion of p< 0.05, the dependent variable was age at menopause , and the independent variables were age at menarche , duration of diabetes , history of lifelong irregular cycle , use of oral contraceptive , history of smoking , family history of diabetes or autoimmune disease or POF or premature menopause , number of pregnancies. The model was insignificantly associated with age at menopause (F=1.6, P=0.09, multiple R for the model was 0.28 and adjusted R was 0.033 . With adjustment for each variable separately the only variable significantly associated with age at menopause was personal or family history of autoimmune disease P =0.01. **Conclusions:** as there is no data on estimated age of menopause in Libya or Benghazi, we compared our result to the data from other countries. The age of natural menopause in Egypt (46.7) so it seems higher, but comparable to the age of menopause in Saudi Arabia (48.1). Personal or family history of autoimmune disease was the only predictor of early menopause in type 2 diabetic patients in our study.

P9. INCIDENCE OF IMPAIRED FASTING GLUCOSE IN PATIENTS ATTENDING A PRIMARY CARE CENTRE IN BENGHAZI Najat Buzaid, Department of Internal Medicine, Garyounis University, Benghazi, Libya

Introduction: Type 2 diabetes mellitus is frequently not diagnosed until complications appear, and approximately one third of all people with diabetes may be undiagnosed. Prediabetes is commonly increasing in prevalence, and impose significant public health burdens. There are effective interventions that prevent the progression of pre-diabetes to overt diabetes and hence reduce complications of diabetes. **Aim of the study:** To determine the incidence of impaired fating glucose in patients attending Ras obida primary care centre. **Patients and methods:** Two hundred and fourteen patients were included in the study during the year 2008. They all have no classical symptoms of diabetes. Fasting plasma glucose (FBG) was requested after at least 8 hours fast. FBG ≥ 126 mg/dl indicates diabetes, BG 100-125mg/dl indicates impaired fasting glucose (IFG). Body weight and height were measured and body mass index (BMI) was calculated. A questionnaire included: date of birth, family history of diabetes in first degree relatives, and any history of macrosomia or gestational diabetes. **Results:** Sixty-one patients (28.5%) had impaired fasting glucose (IFG). Two (8.3%) patients in the age group of 20-29 yr had IFG, eight patients (18.6%) in the age group of 30-39 y had IFG, fifteen (31.2%) in the age group of 40-49 y had IFG, twelve (29.3%) in the age group of 50-59 y had IFG, and 24 (50%) in the age group of ≥ 60 y had IFG, there were six patients in the age group of < 20 y and all have normal FBG. 29.5% of females had IFG, and 25.9% of males had IFG. There were 147 patients with BMI of >25, 54 of them had IFG (OR=4.6). There were 101 patients in the age group of >45 y, 40 of them had IFG (OR=2.7), Family history of diabetes in first degree relatives was found in 104 patients, 31 of them had IFG (OR=1.1). There were 45 women who had delivered a large size baby, 23 of them had IFG (OR=2.4), Only one patient had history of gestational diabetes and she had impaired fasting glucose. Four patients (1.9%) were discovered to be diabetic. Two of them were males and two were females. One of them was in the age group of 30-39 y, one patient was in the age group of 50-59 y and two patients were in the age group of ≥ 60 y. All of them had a BMI of >25, two of them had a positive family history of diabetes in first degree relatives, one female had an obstetric history and she had a history of delivering a large size baby, Three patients were in the age group of >45 y. **Conclusions:** Impaired fasting glucose was present in a significant percentage, affecting both gender and the age groups of >30y. Overweight and obesity were the main significant risk factors for impaired fasting glucose and diabetes. Other risk factors were also implicated. Implementation of a screening program for glucose abnormalities is recommended to promote diabetes prevention and early diagnosis.

P10. Patterns of Diabetic Retinopathy in Benghazi Diabetes and Endocrinology Center. [1]Mirvat Amer, [2]Suhair Jaber, [1]ophthalamology Department, [2]Suhair Jaber, Diabetes and Endocrinology Department, Benghazi Diabetes and Endocrinology Center, Benghazi, Libya

Background: Diabetic retinopathy is one of the chronic microangiopathic diabetic complications that contribute to vast majority of blindness world wid. Early detection of the earliest retinal changes and timely treatment in addition to better blood glucose and blood pressure control would help sight preservation. **Aim of study:** 1. To find out the approximate prevalence of diabetic retinopathy in patients visiting ophthalmology clinic in BDEC. 2. To find out correlation between diabetic retinopathy and sex, mode of therapy, and Smoking and 3. What are the common forms of retinopathy in our clinic? **Methods:** The registered notes for the patients visited ophthalmology clinic in BDEC from

July 18,2007 up to March 25,2008 that have been collected by our eye specialist where checked retrospectively and the informations included , age, sex, duration of DM, type of treatment, fundus examination history of HTN, IHD, smoking. The results were analyzed in percentage for comparsion. **Results:** Total of 200 patients records where reviewed; 104 males and 96 females. Mean age for males 56.5 years, for females 54.1 years with mean duration of diabetes 12.4 years for males and females 12.4 years. 52% of patients were on insulin, 23% on oral hypoglycemic, 6% on both, and 13.5% their treatment regimen was not documented. More than half of the patients had normal fundus examination, 20% had BGDR (12% females versus 8% males) 18% maculopathy (11% females versus 7% males), 3.5% had pre proliferative (females 2.5% versus 1% males), and 1.5% had advanced proliferative changes. Only three cases with advanced changes and they were all males. From 84 patients with retinal changes, nine patients received laser therapy. **Conclusions:** The commonest pattern of diabetic retinopathy was BGDR followed by maculopathy. Females tend to have more diabetic retinal changes as compare to males. Correlation with smoking was not possible, as the smoking history was not mentioned in about 75% of male patients. The filing system in diabetic eye clinic needs to be more systematic and informative in order to have a better assessment of the prevalence of diabetic retinopathy in BDEC.

P11. THYROID FUNCTION ALTERATIONS IN PATIENTS WITH NON THYROIDAL ILLNESS IN A MEDICAL ICU.

A.Elamami and H. Zaid, Department Of Medicine, Faculty Of Medicine, Garounis University, Endocrine Unit, The 7th Of October Hospital And Diabetic Center , Benghazi, Libya. Intensive Care Unit, The 7th Of October Hospital, Benghazi, Libya

Background: Multiple alterations in serum thyroid function test have been recognized with wide variety of acute severe non thyroidal illness (NTI), the most prominent alterations are low T3 and elevated rT3. TSH and T4, FT4, free T4 index also are affected in variable degrees based on the severity and duration of NTI.
Objective: To determine the prevalence of thyroid function alteration in patients with non thyroidal illness in a medical ICU of 7th October hospital. **Patients and Method** : Prospective follow up study included patients who were admitted to ICU of 7th October hospital during the first 3 months of 2008 with low probability of having thyroid or pituitary disease (i.e. no previous or recent personal or family history or examination finding suggestive of thyroid or pituitary disease) were analyzed regarding their age , gender ,GCS, blood sugar & plasma creatinine at admission , dopamine and dexamethasone therapy , length of stay in ICU , thyroid function test (T3, T4, TSH) during ICU stay (rT3 was not available), out come from their ICU stay and hospital mortality. The statistical analyses were performed using SPSS . Normal range of T3 (1.3—3.1n mol/L), T4 (66—187nmol/L), TSH (0.27—4.3) uIU/ml.
Results : Fifty one were included , 17 males , 34 females , the mean age was 66+/-16 years ,mean T3 level 0.87+/-0.5 , T4 71+/- 30 , TSH 1.7+/- 1.3 , the prevalence of thyroid dysfunction for all sample was 84.3% . The prevalence of low T3 was 80.4%, high T3 2%, low T4 37.3%, high T4 2%, low TSH in 3.9%, slightly high TSH 2%. There was no difference between the level of T3, T4 , TSH between who survived the illness compared to the group who died during their ICU stay (mean T3 in survived group 1+/-0, and 0.8+/- 0.6 died group, 2 m P =0.2) ,mean T4 in died group 70.1+/-33.9, survived 75.4+/-19.1 P=0.5) , mean TSH in died group 1.6 +/- 1.2 , survived 1.6+/- 1.1 P= 0.9) , also no difference in patient on dopamine or dexamethasone , no correlation were found between (T3, T4, TSH) level and age, length of ICU stay, GCS, blood sugar at admission, , 5 patient out of 11 who survived they came for follow up after 30 day of discharge and their thyroid function return to normal. **Conclusions**: Thyroid function alterations are common in critically ill patients, mostly low T3.

P12. FIRST EXPERIENCE WITH INSULIN ANALOGUES IN TYPE 1 DM IN TRIPOLI DIABETIC HOSPITAL.

Naima T.Eshwihdi, Samia A. Elmiladi, Tripoli Diabetic Hospital, Tripoli, Libya

Background: The global incidence of T1DM is increasing. Results from the Diabetes Control and Complications Trial (DCCT) demonstrated that intensified insulin therapy reduces the risk of micro- and macro vascular events compared with conventional therapy. **Aim**: To study the effect insulin analogues (glargen, lispro) in type 1DM regarding glycaemic control. **Method:** A cross sectional study which included a (hundred) patients of type I Diabetes in Tripoli diabetic hospital from(Nov 2009 until April 2010).The data collected about Patient's demographics, some important points in clinical history, relevant investigations , and the patients were followed after 3 month. **Results**: The study reported (100)patients, (72%)of them were female their age range between (13-53 years)with mean age(27.4±9.4 years), the duration of diabetes ranged from newly diagnosed to(31 years) with mean(8.7±9.1 years),(46%)of them

were dieting ,(73%)were doing self monitoring for their blood glucose , with total daily dose mean (55.1±19 IU) ,Number of daily doses(3±1) ,history of hypoglycemic episodes (4±4) .Their mean weight (65.8±12.7Kg) ,BMI (24.7±4.4) ,their HBA1c pre study mean (11±2.4%). The total daily dose is increased (61±24.8 IU) , the number of daily insulin doses (4),number of hypoglycemic episodes/month decreased(1.1±2),the mean weight increased (67±14.6Kg),their mean HBA1c decreased(9.5±2.3%) .**Conclusions**: the study shows that insulin analogues (glargen, lispro) improved the glycemic control in type 1 diabetic patients (i.e.HBA1c), with decrease in the number of hypoglycemic episodes/month; however, both total daily dose and mean body weight are increased.

P13. OXACILLIN RESISTANT *STAPHYLOCOCCUS AUREUS* ISOLATED FROM DIABETIC PATIENTS IN ALJALA SURGICAL HOSPITAL BENGHAZI.

Najat Buzaid, Abdul-Nasser Elzouki, Ibraheem Taher , Garyounis University, Benghazi, Libya

Background: Oxacillin Resistant *Staphylococcus aureus* (ORSA) has been found worldwide especially in hospitals. ORSA is one of the growing numbers of multi-drug resistant organisms in 1990s that represent threat to continued effectiveness of antibiotics. Diabetes mellitus considered as one of the important risk factors that predispose to ORSA infection. Resistance results from the production of an additional penicillin-binding protein (PBP2a) mediated by the *MecA* gene, which allows continued synthesis of the bacterial cell wall despite the presence of the anti-staphylococcal penicillin. **Objectives:** To determine the frequency of *ORSA* among *S. aureus* isolates in diabetic patients with diabetic foot and wound infection and to determine the susceptibility profile of ORSA isolates to vancomycin, ciprofloxacin, erythromycin, and chloramphenicol. **Methods:** Twenty-two patients with diabetes had *S. aureus*. Samples were collected from Microbiology Department in the Central Laboratory at Aljala hospital, Benghazi- Libya. The study was undertaken during the period from April to August 2007. Diagnostic samplers were in the form of pus from abscesses and wound swabs. *S. aureus* isolates were identified by catalase test, tube coagulase test, and mannitol salt agar. *S. aureus* isolates were tested for resistance to oxacillin, vancomycin, ciprofloxacin, erythromycin, and chloramphenicol by performing disc diffusion method using commercial discs according to the guidelines of the National Committee for Clinical Laboratory Standards 2002. Isolates that showed resistance to oxacillin were further tested by detection of penicillin binding protein 2a using slide latex agglutination test. **Results:** Nine (40%) *S. aureus* isolates were confirmed to be ORSA and all tested positive for PBP2a. There were 11 samples in the form of pus from foot abscess and one sample from a surgical wound swab. There were 12 males and 10 females. Three of males were positive for ORSA (P= 0.01). Six of females had ORSA (P =0.005). There were six patients in the age group of 30-40 y, two of them had ORSA. Seven patients in the age group of 41-50 y, one of them had ORSA. There were 4 patients in the age group of 51-60 y, half of them had ORSA. There were 5 patients in the age group of > 60 y, 4 of them had ORSA. There were six patients in male surgical ward-A, two of them had ORSA. There were six patients in male surgical ward-B, two of them had ORSA. There were four patients female surgical ward-A, one of them had ORSA. There were five patients in female surgical ward-B; three of them had in ORSA. There were one patient in burn shock room and he had ORSA. Resistance to vancomycin and ciprofloxacin was seen in three patients with ORSA. Five patients had erythromycin resistance and one had chloramphenicol resistance. **Conclusions:** ORSA infection was significant among patients with diabetes. ORSA was a multidrug resistant organism. It affected both gender. Vancomycin resistance needs more confirmation with E test or PCR. A screening for ORSA carriage among diabetic patients and implementation of prevention and treatment programs are recommended.

P14. LATE PRESENTATION OF A RARE CASE OF PSEUDOHYPOPARATHYROIDISM.

Mohamed.Y. Sedik and Bala Balaramiah, Ibn senna Teaching Hospital, Sirte University-Libya

Twenty nine years old Libyan female patient presented with features of acute gastroenteritis which improved well with appropriate treatment. On examination: She was short, obese, rounded face, and mentally retarded young female. She has polydactyly of both hands with short 4th metacarpal of the right hand. Biochemical findings were as follows: Hb: 13.8gram/dl, WBC: 6.8 thousands/cumm , ESR: 38mm/hour, blood urea: 28mg/dl, Serum albumin: 4.2gm/dl, serum creatinine: 0.8mg/dl, total protein: 6.8gm/dl, Serum calcium: 5.8mg/dl, serum phosphorus: 6.2mg/dl, serum chloride: 102mEq/l, Serum alkaline phosphatase: 200 U/L Urinary calcium excretion in 24hours urine: 284mgs/24 hrs (normal below 200mgs/24hrs), ECG , Chest x ray, and MRI-brain all were normal. X ray of both hands showed short 4th metacarpal bone of the right hand with Polydactaly of both hands. Slit lamp examination of eyes was normal. The above-mentioned striking abnormal

skeletal findings with persistent hypocalcaemia, hyperphosphatemia, normal alkaline phosphatase, and normal renal functions alerted us to look for Pseudohypoparathyroidism. Her serum PTH found to be highly elevated: 572 pg (15 - 65 pg) With the above mentioned characteristic physical findings and ,hypocalcaemia, hyperphosphatemia, normal alkaline phosphatase with highly elevated serum PTH, the diagnosis of a rare variant of hypoparathyroidism--"pseudohypoparathyroidism" Type 1a phenotype was made.

P15. CORD AND MATERNAL GLYCOSYLATED HAEMOGLOBIN IN DIABETIC AND NON-DIABETIC MOTHERS OF MACROSOMIC BABIES AT DERNA-LIBYA [1]ABDELLATIF M. AMNAINA, [2]SOAD AGROUD, [3] OMAR EL-SHOURBAGY, [1]PADIATRICS DEPARTMENT, [2]GYNAE. AND OBSTETRIC DEPARTMENT, [3]COMMUNITY DEPARTMENT, FACULTY OF MEDICINE, OMER AL-MUKHTAR UNIVERSITY DERNA-LIBYA.

Objective: To investigate maternal and neonatal outcomes of pregnancies in diabetic and non-diabetic mothers with macrosomic babies, and to assess whether maternal or cord glycosylated hemoglobin (HbA1c) can predict abnormal fetal growth. **Methodology:** This case–control study included diabetic and none diabetic mothers of macrosomic babies, attending Obstetric Department at Alwahda Teaching Hospital, Derna, Libya from June 1, 2008 to May 31, 2009. Maternal characteristics (age, gravidity, and parity), duration, and treatment of diabetes were recorded. All newborns were observed at the neonatal unit and were examined according to a standardized checklist by a pediatrician at delivery. Maternal and cord blood HbA1c levels were measured by the ion exchange method. The local ethical committee approved the study. **Results:** 100 pregnant women (60 diabetic) with a mean age of 33.1± 5.1 years were recruited. There was no significant differences between the mean values of either maternal or cord blood HbA1c in non-diabetic mothers (6.43 %± 2.7, 45.3 %±13.9) as compared to diabetic mothers (7.3 % ± 2, 45.4 % ± 14.6) P > 0.05. The mean birth weight and head circumference of macrosomic babies born to non-diabetic mothers (4.9 ± 0.5 kg, 36.8 ± 1.3 cm) were significantly higher than macrosomic babies of diabetic mothers (3.9 ± 0.8 kgm, 34.7 ± 1.7 cm, P< 0.001) The percentages of congenital malformation and neonatal mortality in babies born to the diabetic mothers (15% and 6.7% respectively) were considerably higher than those born to non-diabetic mothers (10% and 0% respectively). 97% of babies born to none diabetic mothers were delivered by caesarean section as compared to 42% of diabetic mothers.

Conclusion: Maternal and cord blood glycosylated hemoglobin is not a useful test in the prediction of abnormal fetal growth.

P16. QUALITY OF LIFE AMONG TYPE 2 DIABETIC PATIENTS. Mohamed Algabsi[1], Abdel Monsef Alokali[1], Ibrahim Bufares[1], Omar El Shourbagy[2], [1] Department of Internal Medicine, [2] Department of Community Medicine, Faculty of Medicine, Omar Almukhtar University, Libya

Background: Prevalence of diabetes mellitus is increasing in developed and developing countries. Diabetes is known to strongly affect the health-related quality of life (HRQOL). HRQOL is also influenced by living conditions. **Objective:** To explore the quality of life (QOL) among type 2 diabetic patients. **Methodology**: A sample of 400 patients from diabetic outpatients' clinic center, Derna-Libya, from May to September 2009, was subjected to a quality of life (QOL) score using WHOQOL-BREF criteria. To assess HRQOL, we used the World Health Organization Quality of Life questionnaire (WHOQOL-BREF) including four domains (physical health, psychological, social relations and environment).Simple descriptive statistics were used to provide basic information for analytical purposes the t-test and correlation coefficient were applied. Ethical consecrations were taken. **Results**: Fifty one percent of study participants were females. Most patients belonged to the age groups of either ≥ 60 years (28%) or < 60 years (72%). The mean score values of all domains except the social relationships were significantly lower in diabetic patients over 60 years as compared to under 60 years patients, with stronger effects in physical health (47+15 vs. 57+15 points of the 0–100 score. **Conclusion**: HRQOL is reduced in type 2 diabetic patients in Derna, Libya. Women and older patients are especially affected. To prevent side effects of the disease and trying to stay healthy will significantly improve QOL.

P17. SCREENING FOR DIABETIC PERIPHERAL NEUROPATHY USING DN4 (DOULEUR NEUROPATHIQUE 4 QUESTIONS) QUESTIONNAIRE. Abdel Monsef Alwakali[1], Ibrahim Bufares[1], Omar El Shourbagy[2,] [1]Department of Internal Medicine. [2]Department of Community Medicine, Faculty Of Medicine, Omar Almukhtar University, Derna, Libya

Background: Recent data suggest that neuropath-

ic pain (NP) might affect up to 5%–8% of the general population. Diabetic peripheral neuropathy (DPN) is very common among patients with type 2 diabetes and a pivotal component of foot disease; therefore, it is vital that physicians pay close attention to screening. **Objective:** To assesses the DN4 questionnaire as a tool for screening diagnosis of pain associated to diabetic peripheral neuropathy (NP). **Methods:** This study included 400 outpatients with type 2 diabetes at Alwahda Hospital, Derna, from 1st January 2009 to 30 June 2009. The following data were recorded: age; gender; co-morbidity and duration of disease. The DN4 questionnaire consists of a total of 10 items grouped in 4 sections. The first seven items are related to the quality of pain (burning, painful cold, electric shocks) and its association to abnormal sensations (tingling, pins and needles, numbness, itching). The other 3 items are related to neurological examination in the painful area (touch hypoesthesia, pinprick hypoesthesia, tactile allodynia). A score of 1 is given to each positive item and a score of 0 to each negative item. The total score is calculated as the sum of all 10 items, and the cut-off value for the diagnosis of neuropathic pain is a total score of 4/10. Ethical consecrations were taken.
Results: Out of 400 diabetic patients, 240 were females; and the mean age was 57.4 years. Forty two percent of patients (168/400) had DN4 score value ≥ 4 points. High DN4 scores were more common in females than males (61% vs 39%, respectively). DN4 scores were significantly correlated with age and duration of the disease (P<0.001). **Conclusions:** Age and presence of diabetes are important prognostic factors for increased morbidity in patients with diabetic peripheral neuropathy. Screening with dn4 questionnaire is simple, rapid, and useful.

P18. PRESENTATION OF DIABETIC END STAGE KIDNEY DISEASE PATIENTS TO HAEMODIALYSIS IN LIBYA. W A Alashek[1], C W McIntyre1[1,2], M W Taal[2], M A Buargub[3], B E Shebani[4], E D BenOmran[5], M Aboudhair[3]. [1]University of Nottingham, Nottingham, UK. [2]Department of Renal Medicine, Derby Hospitals NHS Foundation Trust, Derby, UK. [3]Alshat Centre for Renal Diseases, Tripoli, Libya, [4]Alzahra Hospital, Zahra, Libya, [5]Benghazi Centre for Renal Diseases, Benghazi, Libya.

Introduction: Nephropathy is frequently observed in diabetic patients. Accordingly, screening for chronic kidney disease (CKD) is essential component of diabetes care. Unplanned initiation of haemodialysis (HD) is associated with psychological, social and medical sequels and undesirable out comes. **Objective:** The study aimed to determine the patterns of presentation of adult diabetic ESKD patients in Libyan HD centres. **Methods**: A descriptive study included a sample of 24 Libyan dialysis centres (out of 38 centres serving adult patients). The selected centres provided maintenance HD therapy for 625 adult diabetic patients (out of all 745 diabetics on HD all over Libya). All registered diabetic patients in the selected centres were included. The study was undertaken from June to August 2009. Researchers had visited the selected dialysis centres in different parts of the country and directly consented and interviewed the targeted patients during their HD secessions. A pre-tested and validated questionnaire was used to obtain information about the medical history and the presentation mode of ESKD. Response rate was 87%. General registry-type information was collected about the non-interviewed patients from the medical records in dialysis centres. **Results**: Median age of the studied patients was 59 years (ranged from 21-88years). Males 371 (59.4%) were more than females 254 (40.6%). Libyan natives were 97.8%. Prevalent ethnic group was whites (88%). Mean age at start of HD for type I diabetes was 31.83 ±6.77 years and for type II was 57.93 ±10.74years. The pre-HD medical history included hypertension in 70.4%, coronary heart disease in 34.1%, lower limb oedema in 28.1%, peripheral vascular occlusion in 27.4% and CVA in 16.8%. Mean duration of dialysis was 2.43± 2.91years. Diabetic Nephropathy was the leading cause for ESKD in 476 patients (76.2%). History of hypertension for years before the onset of diabetes was found in 12.3%. However, the rest of patients reported other diseases that proceeded or accompanied diabetes including; polycystic, hereditary and familial abnormalities in 6.6%, obstructive uropathy and renal stones in 1.9% and glumerulonephritis in 1.1%. A positive family history of ESKD was in 16.4%, where most of them had at least one 1st degree relative affected. Majority of patients (93.3%) reported a history of uremic symptoms before HD while 6.7% had experienced no symptoms. Approximately half of patients (51.4%) did not know about their CKD where they experienced sudden and rapid deterioration of renal function and were refereed to HD as lifesaving measure. Alternatively, 38% experienced gradual deterioration over weeks before initiation of HD while 10.6% had precisely planned onset. Over two thirds (77.2%) needed admission to medical wards at the time of commencement of HD therapy with mean duration of 8.9 ±9.77days. Moreover, 30.3% reported admission to intensive care units for mean duration of 1.26± 2.52days. History of blood transfusion was in 65.2%. In the time of the

interview, 80.3% had native arterivenous fistula, 5% had arterivenous graft, 0.6% had permanent catheter and 14.1% had central venous catheter (CVC). However, the use of CVC was more common (62.3%) in those who started HD during the latest 6 months (P□0.000). **Conclusions:** Despite the fact that diabetes had serious effects on kidneys, most diabetic patients in Libya start their HD treatment on an emergency basis, which increases the risk for morbidity and mortality and raises the cost of management. Preventive measures in diabetic patients should include monitoring of renal function and providing early management. "Sponsored by: Libyan National authority for Scientific Research"

P20. OBESITY AMONG DIABETIC PATIENTS IN DIABETIC CLINIC IN BENGHAZI. Ekram A. Barakat Ben Saoud, Family And Community Medicine Department ,Faculty Of Medicine, Garyounis University.

Background: Obesity is a medical condition in which excess body fat has accumulated to the extent that it may have an adverse effect on health, leading to reduced life expectancy and/or increased health problems. There is a strong link between obesity and type 2 Diabetes Mellitus (DM). Obesity is one the risk factors contributing to insulin resistance and hence predisposition o hyperglycemia. Before the 20th century, obesity was rare, in 1997 the WHO recognized obesity as a global epidemic, In 2005 WHO estimates that at least 400 million adults are obese. **Objective**: To assess the demographic characteristics, Knowledge about obesity as a risk factor for DM among patients attending Seedy Hussain diabetic Clinic in Benghazi and for assessment of the magnitude of obesity , and its effects on controlling blood sugar. **Methodology**: Descriptive cross sectional study has been done in (Seedy-Hussain) clinic, which is the first established Diabetic clinic in Benghazi. The study involved (a convenient sample) of 250 diabetic patients 125 males & 125 females – 2010. The data collected by interview via questionnaire, it was focusing on the level of awareness of diabetic patients to the risks of obesity regarding poor glycemic control. Recorded weight, Height for the patients and used to calculate Body Mass Index (BMI) established by WHO. Statistical analysis SPSS version 11.5 was done. **Results**: Majority of patients' age groups were between 39-59 years old, minimum age was 18, maximum 86, mean age 55. 5 years & SD 12.57. 40%, of Diabetic patients were obese, considering BMI 30 -39.9. Very obese in 15.6% BMI 40 or more. Ideal body weight (Normal) in 12 % only, and overweight 32.4%. The knowledge& attitude of patients about obesity and sedentary life style as a risk factor for DM 82.5%. Knowledge of patients that the maintenance of ideal Body weight & exercise helps in DM control &prevent complication was 83.3% Only 22.8 % of patients are measuring their weight in every clinic visit. Most of patients have an idea about the complications of obesity (74 %). Most patients have a plan for diet control 64% but did not practice it (Difficult in Practice). 40 % of patients were doing regular exercises. **Conclusion**: we concluded that most of diabetic patients were obese or overweight, which led to poor glycemic control. Obesity was an important risk factor for development DM complications.

P21. MANAGEMENT OF DM AMONG PATIENTS ADMITTED TO BENGHAZI HOSPITALS 2010 ACCORDING TO INTERNATIONAL DIABETES MANAGEMENT PRACTICES STUDY (IDMPS). Fatma Yousef Zeyo, Family And Community Medicine Department –Faculty of Medicine –Garyounis University – Benghazi- Libya

Background: More than 220 million people worldwide have diabetes. Almost 80% of diabetes deaths occur in low –and middle- income countries. Almost half of diabetes deaths occur in people under the age of 70 years, 55% of deaths are in women. WHO projects that diabetes death will double between 2005- 2030. In Libya 2003, the mean % prevalence of diabetes mellitus 14.5 %. **Objectives:** To assess management of diabetic patients admitted to Benghazi hospitals according to international diabetes management practices study (I.D.M.P.S). **Subjects & methods:** the IDMPS is an international, multicenter, observational study performed in many countries in Africa, Asia and Eastern Europe, the Middle East and Latin America. A Cross- sectional descriptive study of diabetic patients admitted to 3 hospitals at Benghazi (Al-jala, Al-Jamahiriya and 7th October) were preformed. 149 diabetic patients were interviewed and Data were collected from the files of patients with diabetes admitted to the hospital during the period of five months in year 2010. The standards of the IDMPS applied according to the American Diabetes Association and the European Association for Study of Diabetes 2007 recommendation. **Results:** The total sample size was 149 type 2 diabetic patients. The mean age of patients was (57.5±14), 34% were males and 66% females. About 50% of them were illiterate, 77.5 % of females were homemaker, 51% of males were retired, mean body mass index (BMI) for female was 29.7±6.7 kg/m2 and mean male BMI was 26.3 ± 5.2 kg/m2. The study reported that the mean dura-

tion of diabetes was 12.2 ± 10 years. Diabetes management according to IDMPS revealed that the mean blood pressure was 133/82, only 33% of patients had blood pressure < 130/80, the mean FBS 177.6 ±81 mg %, the mean HbA1c was 8.7±1.3 % and it was measured in 30.7 % of patients with 10% of them had HbA1c ≤ 7%. LDL test was done in 34% of d patients with diabetes and the mean LDL was 125 ± mg/dl, TG= 154.7±62 mg/dl, and HDL 42.2 ± 92 mg/dl. All investigations were done only once on admission with no follow up data on patients' files. The study reported that 36.3% of patients treated with diet only, 25% of patients treated with insulin and 34.6% of patients had HbA1c ≤ 7%. 11.3% of patients had diabetic foot, 12 % had retinopathy, 22% had nephropathy, 32% had CAD, and 14.7% had stroke. 34% of patients still smoking and only 18.5% of them doing exercise and only 14.7% following a strict diet. **Conclusions:** We concluded that the management of diabetes and its complications at three hospitals was below the recommended standards of care; more equipment and instruments need to be available at the hospitals to control diabetes, emphasize regular outpatients follow-up visits in addition to the annual or biannual screening for diabetic retinopathy, nephropathy, and neuropathy. Increase the public awareness about the importance of early screening and diagnosis and prevention of diabetes and its complications.

P22. VASCULAR PROTECTION IN DIABETES: AN AUDIT OF THE BENGHAZI DIABETES ANDENDOCRINOLOGY CENTRE.

Heba El-Zawawi and Azza Greiw, Departments of Medicine and Family and Community Medicine, Faculty of Medicine, Garyounis University, Benghazi, Libya

Background: In diabetic patients with and without known vascular disease, therapy with a statin reduces the risk of major vascular events. In high cardiovascular risk patients, angiotensin converting enzyme (ACE) inhibitors reduce the risk of serious vascular events. Tight blood pressure control in addition to glycaemic control is a safeguard against microvascular and macrovascular events. Both statins and ACE inhibitors are currently recommended in standard therapeutic guidelines for patients with diabetes mellitus. **Objectives**: To study the level of vascular prophylaxis in diabetic patients presenting to diabetologists at The Diabetes and Endocrine Centre in Benghazi, Libya. **Patients and Methods**: A questionnaire was prepared covering patient demographics, social and educational data, smoking and activity habits, comorbidities, type and duration of diabetes mellitus, investigation results, level of patient awareness regarding the need for drug prophylaxis, prescription details, and duration of therapy. Complications were documented and the risk factor burden was calculated. Two hundred patients were included (100 males and 100 females) who were consulting with their usual diabetologist at the Benghazi Diabetic and Endocrine Centre (April-June 2009). The patients were consented verbally for inclusion in the audit. **Results**: The majority of patients (95%) were Libyans from Benghazi (94.0 %). Mean age was 54±13 years. Patients who had received some level of formal education constituted 60.5 %. Amongst the men, current smokers were 13%, and ex-smokers were 24 % and amongst women 11 % were passive smokers. Sedentary life styles were reported in 56% males and 62 % females. In the study population as a whole, both drugs (Statins and ACE-Is)were being received by 8.5% patients only, 43.0 % were receiving one of the two only and / or any other drug aimed at vascular prophylaxis, and 48.5% were on no vascular drug prophylaxis at all. A history of major vascular events was reported by 20 % of the patients of whom only 30% were receiving both ACE inhibitors and statins, and 2.5 % were receiving none. Patient awareness regarding vascular prophylaxis was present in 51.5% of patients. **Conclusion:** There is a low level of full vascular prophylaxis before a serious event has occurred. This may be due to inaccessibility of relevant therapies.

P23. ORAL HEALTH STATUS AND BEHAVIORS IN DIABETIC AND NON-DIABETIC SUBJECTS

Salem Ben Younis[1], Farag Bensoud[2] and Omar El Shourbagy[3], [1] Dental Health Dep. High Institute of Medical Technology, Derna, [2] Internal Medicine Dep. High Institute of Medical Technology, Derna, [3]Community Department Faculty of Medicine, Omar Almukhtar University, Libya

Background: Diabetes is a chronic metabolic disease known to affect oral disease progression. **Objectives:** To assess oral health behaviors and need for improved health education and behaviors essential for preventing dental and periodontal diseases and maintaining oral health in diabetic patients. **Methodology:** This case-control study included 100 diabetic patients, randomly selected from outpatient clinics (Alhelal Alahmer), Derna, from 29/1/2007 to 28/8/2008. In addition, 100 age-matched (18-76 years) nondiabetic controls were evaluated. All subjects completed a questionnaire regarding their oral health attitudes, behaviors, and knowledge including oral health complications of DM and Corah's Dental Anxiety Scale. **Results:** Diabetic patients' tobacco use, oral hygiene behaviors and

dental anxiety were not statistically different from control subjects (34% vs. 36%, 64% vs. 59%, 54% vs. 48%, respectively, P>0.05). Diabetics, however, more frequently reported the cost of private dental care, rather than dental fear and anxiety, as a reason for avoiding private visits (51% vs. 39%, respectively). Most of these subjects were unaware of the oral health complications of their disease and the need for proper preventive care (62%). The mean glycated hemoglobin value of the diabetic patients was 10.7%± 1.8. **Conclusions:** Diabetic patients appear to lack important knowledge about the oral health complications of their disease. Dentists have an opportunity to promote good oral health behaviors.

P24. CLINICAL PROFILE OF DIABETIC FOOT PATIENTS ADMITTED AT AL JALA HOSPITAL, BENGHAZI. Fatma Zeyo and Vinay Rao, Department of Family and Community Medicine, Faculty Of Medicine, Garyounis University, Benghazi, Libya

Background: The primary goal of management of diabetic foot is to minimize the incidence of amputations. In Libya as in other countries, diabetic foot appears to be increasing in rate. Foot ulcer affect 15% of diabetics during their lifetime; represent 6% of hospital admission listed under diabetes and 46% of admission for various ulcer conditions. **Objective**: The management and frequency of amputation in hospital was studied in diabetic foot patients admitted to Al-Jala Hospital in Benghazi. **Methods**: The records of 55 patients with diabetes admitted to Al Jala Hospital in Benghazi from January 2009 to October 2009 were studied. Patients characteristics, duration of diabetes and mode of treatment were recorded, diabetic complications and risk factors were recorded too. The clinical presentation and history of trauma prior to presentation was documented. Foot x-ray and Doppler ultrasound were done for all patients with foot ulceration to assess for osteomyelitis and vascular status. Type of surgical intervention (debridement vs. amputation) and duration of hospital stay was recorded. **Results**: There were 31 males and 24 female with a mean age of 59.7 and 56.7 years for men and women respectively. Duration of diabetes was 17.3 years. Diabetes was treated with insulin (46 patients), insulin and oral agents (4 patients) or oral agents only (4 patients). Random blood glucose was 271 and 286 mg in men and women. 51% had poor glycemic control (with blood glucose higher than 200 mg/dl). History of trauma preceding infection was present in 53%. 16% of the patients had ischemic heart disease and 49% had hypertension. A very high proportion of men were smokers (90%). Patients presented with foot ulceration (73%) and sepsis (27%). Surgical interventions included debridement (25 patients), digital amputation (16) metatarsal amputations (9), below knee amputation (1) and above knee amputations (7). The mean hospital stay was 7.3 days. **Conclusions:** Diabetic foot problems remain serious problems in our practice. Ulceration and sepsis were the major two modes of presentation. The common precipitating factors for ulcers were trauma, smoking, and hypertension. Too many patients required amputations. Steps must be taken to improve awareness among patients with diabetes about the precipitating factors to reduce the incidence of amputations.