SEMDSA 2011:
Spotlight on diabetes, thyroid disorders and calcium metabolism

The University of the Free State, a rapidly transforming institution, is proud to host the annual SEMDSA Congress for 2011 at its beautiful main campus in Bloemfontein from 9 to 11 April.

Amidst the growing worldwide epidemic of type 2 diabetes, it is appropriate to return to basics and focus on the in-patient management of diabetes. No one is more suitable for this task than Prof Guillermo Umpierrez, Professor of Medicine in the Division of Endocrinology and Metabolism at Emory University School of Medicine (Atlanta, Georgia), and Chief of Diabetes and Endocrinology at Grady Memorial Hospital. Prof Umpierrez’s research interests include mechanisms for β-cell dysfunction in minority populations with ketosis-prone type 2 diabetes, the effects of free fatty acids on insulin secretion, inflammation and hypertension in obese patients, and the use of insulin in the in-patient management in critical and non-critical patients. During the SEMDSA Congress, he will be speaking on new guidelines for the management of in-patient hyperglycaemia in the non-ICU setting, and the management of hyperglycaemic emergencies.

Clinicians are confronted daily with hospitalised patients suffering from hyperglycaemia, whether they are diabetics or not. Some of the questions that might arise are whether the acutely ill patient is suffering from diabetes mellitus or not, how to manage the patient (“to sliding scale or not to sliding scale”), what level of glucose control is acceptable, and what to do on discharge? During the talk, these issues and many more will be discussed. Diabetic ketoacidosis (DKA) is the number one cause of death in children and adolescents suffering from diabetes mellitus. Prof Umpierrez has published extensively on the management of hyperglycaemic emergencies and was a member of the American Diabetes Association (ADA) task force that was responsible for compiling the consensus statement on the management of hyperglycaemic emergencies. During the meet the professor session, the very important topic of the perioperative management of the diabetic patient will be discussed. Throughout this session, attendees can ask questions on difficult or problematic cases.

Hypoglycaemia remains one of the most important hurdles in the optimal management of type 1 diabetes. SEMDSA is very fortunate in that Prof Stephanie Amiel, a world authority on the subject, will address the meeting on this and related topics. Prof Amiel is the RD Lawrence Professor of Diabetic Medicine at King’s College, London. In her talk Hypoglycaemia in type 1 diabetes: avoidable or inevitable, delegates can expect to learn more about new developments in the aetio-pathogenesis of hypoglycaemia unawareness, and on new strategies to avoid hypoglycaemia and to preserve cognitive function. Along with her collaborators at King’s College and St Thomas’ Hospital, Prof Amiel developed new neuro-imaging techniques to investigate regional brain activation and metabolism during hypoglycaemia. Apart from gaining new insights into the aetio-pathogenesis of hypoglycaemia, we are looking forward to learn how these new scientific tools opened up a complete new research area, namely brain metabolism and glucose sensing in insulin-resistant syndromes, as well as appetite dysregulation in the metabolic syndrome. During a meet the professor session, Prof Amiel will interact with delegates regarding diabetic pregnancy, focusing on the Hyperglycemia and Adverse Pregnancy Outcomes (HAPO) study.

New insights into thyroid hormone signalling will be discussed by Prof Anthony Hollenberg from the Beth Israel Deaconess Medical Centre, a teaching hospital of Harvard Medical School, Boston. Prof Hollenberg is Associate Professor of Medicine at this institution, as well as Chief of the Thyroid Unit and Director, Clinical Investigator Training Program - BIDMC and Harvard Science and Technology. He is one of those rare clinician-scientists who successfully combines clinical and laboratory work. Prof Hollenberg will review some of the latest discoveries on how thyroid hormone really functions in humans, including new breakthroughs on thyroid hormone transporters, deiodinases and thyroid hormone analogues in clinical development. In addition, Prof Hollenberg will also discuss the issues surrounding thyroid disease in pregnancy. During a meet the professor session, delegates will have the opportunity to learn more
from him about inappropriate TSH secretion at the hand of case studies.

Prof Leif Mosekilde is an international authority on calcium metabolism and osteoporosis. He is Professor of Osteoporosis and Metabolic Bone Diseases at Aarhus University, Denmark, and Chief Physician at the Division of Endocrinology and Metabolism, Aarhus University Hospital. His research interests include bone histomorphometry, calcium kinetics, bone strength, vitamin D metabolism, metabolic bone diseases, osteoporosis and pharmacoepidemiology. Prof Mosekilde has a special interest in hyperparathyroidism and his work on the histomorphometric effect of thyroid hormones on bone remodeling has revolutionised modern thinking about the condition. The topics he will be covering include PTH treatment in hypoparathyroidism and the emerging anabolic treatments for osteoporosis. During a meet the professor session, he will be discussing the very important and ever increasing challenge of the treatment of asymptomatic primary hyperparathyroidism.

Prof Roland Pfäffle from the University Hospital in Leipzig, Germany, will focus in his talks on genetic defects of the GH-IGF-1 axis in intrauterine growth retardation, and genetic testing in patients with hypopituitarism. In the latter talk, we could expect to learn more about mutations of the TSH-beta gene in Europids as a cause of congenital central hypothyroidism.

As usual, SEMDSA also provides a forum for local clinicians and scientists to showcase their own original work and to interact with colleagues. Apart from the scientific sessions, there will be ample opportunity to socialise and to enjoy the warm hospitality of Bloemfontein and its citizens.

SEMDSA wishes to use this platform to express the society’s gratitude and appreciation towards the pharmaceutical industry for their unconditional and sustained financial support of the society’s academic activities, as well as their role in supporting the training of fellows in endocrinology.

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