PART 1

XVIII ANNUAL MEETING OF THE SOCIEDAD LATINOAMERICANA DE ENDOCRINOLOGIA PEDIATRICA (SLEP, 2006)

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From September 30th to October 3rd 2006, we had the great opportunity to participate in the XVIII meeting of our Sociedad Latinoamericana de Endocrinología Pediátrica (SLEP). The president was Dr. Veronica Mericq, who devised a high-quality scientific program, which included pannels with well-known invited lecturers. This and the outstanding research contributions of our members and colleagues helped make this event one of the most successful in SLEP’s history.

The opening lecture was given by invited faculty Dr. Steven Chernausek (Cincinnati, USA) who talked about the role of IGFs in the control of human growth. Dr. Chernausek gave a clear explanation of the physiopathology of IGF-I resistance (IGF-I receptor and the reduction in IGF-I signaling) and its importance in pre- and post natal growth. He described the phenotype related with IGF-I resistance, characterized basically by intrauterine growth retardation and failure of catch-up growth, which could also be associated brain growth and carbohydrate tolerance defects.

Dr. Leo Dunkel (University of Kuopio; Finland) lectured about the “Biological actions of estrogen aromatase inhibitors in a model”. He explained that in prepuberal girls the main source of estrogens is predominantly synthesized in peripheral tissues through local aromatization of circulating androgens, mostly produced by the adrenals. He reviewed the effects of the aromatase inhibitors on lipid metabolism, cognitive function and male reproductive health.
Dr. Dunkel also lectured on “Aromatase inhibitors in growth modulation, are they effective and safe?”. He warned that aromatase inhibitors should be used only in clinical trials by now, until more results of long-term follow-up trials become available.

Another lecture by Dr. Dunkel was “Are boys with Klinefelter Syndrome (KS) androgen deficient?” Dr. Dunkel showed how testicular function undergoes a progressive deterioration during puberty and later. The pubertal increase in serum testosterone concentration was strongly associated with the development of hypergonadotropic hypogonadism, a decrease in serum inhibin B and AMH, and the disappearance of germ cells. This degeneration was correlated with genetic features of the X-chromosome, such as parental origin and androgen receptor polymorphism.

One of the most moving moments was the Cesar Bergadá Plenary Lecture, in honor to Dr. Cesar Bergadá. This conference was presented by Dr. Charles Sultan (University of Montpellier; Francia). Dr. Sultan talked about the “Impact of molecular genetics in Pediatric Endocrinology”; in disorders such as sex determination and differentiation, and pubertal abnormalities. Dr. Sultan did also present the lecture entitled “Environmental disruptors and endocrine disease, including alterations of sex differentiation”. His study was designed to determine whether there is an adverse trend in the incidence of micropenis, hypospadias, cryptorchidism, and male pseudohemaphroditis, and whether prenatal exposures to chemical pollutants, such as pesticides, do play a role. He also presented some evidence in that, in an agricultural region, the prevalence on external genital malformations in male newborns was higher in cases of prenatal exposure to pesticides. Finally, he talked about the different clinical presentation of androgen resistance syndrome.

The lectures related to diabetes mellitus were presented by Drs. Kristina Rother (NIDDK & NIH; EEUU) and Silva Arslanian (University of Pittsburgh; USA).
Dr. Rother showed the different “Strategies to prolong the honeymoon period in type 1 Diabetes Mellitus”. She emphasized that during 1980’s several clinical trials have shown that immunosupression can arrest the beta cell destructive process. The therapy must be oriented to immunomodulation more than to immunosupression. During her lecture, she discussed some possible interventions; however, no agent has yet been shown to be sufficiently safe and well tolerated. Only intensive insulin therapy has shown both safety and partial efficacy.

Other conference presented by Dr. Rother was “What have we achieved in the field of islet transplantation for type 1 diabetes?” At the beginning, islet transplantation was seen as a promising alternative. However, the complications of this procedure and the risk of life-long immunosupression, are two reasons why it cannot be recommended yet.

Dr. Arslanian, gave a nice lecture about “Type 2 diabetes mellitus (DM2) in youth: An epidemic in progress”. She referred to the alarming trend of increasing cases of DM2 during childhood and adolescence. The clinical characteristic of this entity are: obesity and increased body mass index, mean age at diagnosis of 13.5 years, increased female-to-male ratio, majority of patients in mid-puberty, predominance of American-Indian, African-American and Latino children, acanthosis nigricans, and family history of DM2. The most important common element was the insulin resistance. She emphasized that the first strategy in the treatment, entails the change to a healthful life style (Healthy meals and exercises), then the use of metformine and, in cases of abnormal metabolic control, the use of insulin therapy. Furthermore, Dr. Arslanian, talked about “Insulin resistance: a forthcoming of adult disease”. She emphasized that insulin resistance is compensatory phenomena associated with a metabolic adverse corporal composition, mainly determinate due increased abdominal fat.

Dr. Stephen Shalet (Christie Hospital, Manchester, UK) gave a lecture on “Endocrine consequences of cancer therapy”, showing the prevalence of endocrine problems in adults who are survivors of childhood cancer, estimated in 1/700 adults between 16 to 34 years old. The endocrine damage is due
primarily to irradiation. A variety of endocrine problems may be seen, including hypopituitarism - ranging from isolated growth hormone (GH) deficiency to panhypopituitarism - precocious puberty, thyroid cancer, hypothyroidism, hyperthyroidism, osteoporosis, infertility and hypogonadism. Moreover, Dr. Shalet talked about “Management of the GHD teenager during the transition period”. Adolescence is a crucial time for acquisition of bone mass: bone mineral density at the lumbar spine and femur increase by 4- to 6-fold over 3 years. In severe GHD deficit, teenagers may need a transitional dose of GH to ensure a better bone mineralization after final height is attained. Then, Dr. Shalet, talked about the subject “New strategies to improve reproductive potential of children treated for cancer”, such us 1) LHRHa therapy, to speed up the process of recovery from cytotoxic-induce germ cell damage rather than offer “protection”. 2) Ovarian cortical strip removal and cryopreservation, followed by re-implantation after cancer treatment. 3) The use of sphingosine 1-phosphate to prevent oocyte death in ovaries exposed to radiation or chemotherapy. 4) Testicular biopsy, isolation and cryopreservation of stem cell spermatogonia, and re-insertion via the rete testis after completion of CT.

During the last day of the congress, Dr. Chernausek talked about “Treatment of the short child born small for gestational age (SGA)”. Growth hormone has emerged as a therapeutic option to treat the short child born SGA. A child older than three years old, who has been born SGA and has persistent short stature (-2 SD), must be evaluated by a pediatrician with expertise in endocrinology. The objectives of the treatment are: early catch-up growth, maintenance of a normal growth in childhood, and achievement of normal adult height. Children must be monitored for changes in glucose homeostasis, blood lipid levels, and blood pressure during therapy.

Finally, Dr. Paul Saenger (Universidad de Albert Einstein College of Medicine; NY, EEUU) talked about the preliminary analysis of safety and efficacy of novel sustained-release rhGH (LB03002) given once a week for up to 24 months to prepubertal children with growth hormone deficiency. The administration of LB03002 up to 24 months was safe and well tolerated and
delivered an auxologic response indistinguishable from the daily, conventional GH group.

Old and new friends enjoyed staying in Viña del Mar, attending many social activities and taking part in an excellent meeting. The beautiful city of Mar del Plata, Argentina, will be our host city in 2007.

Dear friends, see you soon.

Alejandro Martínez.