ESCs 10,000 cells per well (LCA condition) → Low cell adhesion plate

SFEBq → Quick reaggregation → Large cell aggregation

Hypothalamus → Rathke’s pouch → Rathke’s pouch – Pituitary gland

Oral ectoderm → Endogenous BMP

Shh signal

ACTH cells

b) Thyroid

Oral ectoderm → Rathke’s pouch

Hypothalamus

Rathke’s pouch

Pituitary gland

ACTH Neurofilaments

Day 6 Pitx1 Rx

Day 13 Lim3::Venus

Day 13 Lim3 Pitx1 Tul

Day 21 ACTH

Day 21

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Understanding Differences and Disorders of Sex Development (DSD)

Editors

Olaf Hiort
S. Faisal Ahmed

Ten years ago a group of experts assembled in Chicago to develop a consensus on the management of conditions previously described as intersex. The consequences of this consensus have been far reaching, including a change in nomenclature, the development of greater collaboration across geographical boundaries, and a move towards greater involvement of patients and parents. Moreover, an international registry was established, as well as research and clinical networks.

This book brings together a thorough overview on all these topics. Furthermore, the major technological advances in diagnostic genetic and biochemical capabilities over the past 10 years are outlined in detail. Offering a comprehensive update on various aspects of disorders of sex development (DSD), this book will be essential reading to all clinicians who are involved in delivering health care to patients with a DSD, as well as scientists involved in biomedical research related to DSD.

Contents

Foreword: Hiort, O.; Ahmed, S.F.
Preface: Hughes, I.; Lee, P.

Concepts

• Gonadal Development: Lucas-Herald, A.K.; Bashamboo, A.
• The Masculinization Programming Window: Welsh, M.; Suzuki, H.; Yamada, G.
• Androgen Action: Werner, R.; Holterhus, P.-M.

Technological Advances

• Steroid Biochemistry: Kamath, C.; Wudy, S.A.; Krone, N.
• Next Generation Sequencing for Disorders of Sex Development: Tobias, E.S.; McElreavey, K.
• Advances in Neuroimaging: Rodie, M.E.; Forbes, K.P.; Muir, K.
• Imaging, Endoscopy and Diagnostic Surgery: Wünsch, L.; Buchholz, M.
• Fertility Issues in the Management of Patients with Disorders of Sex Development: Guercio, G.; Rey, R.A.

Communication

• Disorders of Sex Development Peer Support: Baratz, A.B.; Sharp, M.K.; Sandberg, D.E.
• Improving the Communication of Healthcare Professionals with Affected Children and Adolescents: Nordenström, A.; Thyen, U.
• Working with Adolescents and Young Adults to Support Transition: Gleeson, H.; Wisniewski, A.B.

• Past Experiences of Adults with Disorders of Sex Development: GrApSIA; Audi, L.

The Use of Drugs

• Sex Hormone Replacement in Disorders of Sex Development: Bimbam, W.; Berteloni, S.
• Hydrocortisone Replacement in Disorders of Sex Development: Blankenstein, O.

Tumours

• Advances in Molecular Markers of Germ Cell Cancer in Patients with Disorders of Sex Development: van der Zwan, Y.G.; Cools, M.; Looijenga, L.H.J.
• Managing the Risk of Germ Cell Tumourigenesis in Disorders of Sex Development: Cools, M.; Looijenga, L.H.J.; Wolfenbuttel, K.P.; T’Sjoen, G.

Timing of Surgery

• Timing of Hypospadias Repair in Patients with Disorders of Sex Development: Springer, A.; Baskin, L.S.
• Timing of Surgery for Feminizing Genitoplasty in Patients Suffering from Congenital Adrenal Hyperplasia: Eckoldt-Wolke, F.

International Aspects

• Rare Diseases Research and Practice: Polizzi, A.; Balsamo, A.; Bal, M.O.; Toruscio, D.
• Achieving Diagnostic Certainty in Resource-Limited Settings: Raza, J.; Mazen, I.

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Contents

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This book presents a comprehensive overview of paediatric thyroid diseases and thus provides a useful tool for clinical problem solving. Opinion leaders in the field present reviews on all relevant diseases of the hypothalamic-pituitary-thyroid axis. Sixteen chapters cover topics ranging from foetal thyroidology, congenital hypothyroidism, central hypothyroidism, inherited defects of thyroid hormone action, cell transport and metabolism to iodine deficiency, autoimmune thyroid disease and thyroid tumours. Written by clinicians, the chapters provide in-depth information and current guidelines for clinical problems encountered in paediatric thyroidology. As a unique feature, a case seminar collection for each chapter presents typical patient histories providing key learning points and key references for clinical problem solving in family medicine, paediatric endocrinology and medical genetics.

Contents

Preface: Szinnai, G.

Thyroid Hormone Physiology

• Evolution, Child Development and the Thyroid: A Phylogenetic and Ontogenetic Introduction to Normal Thyroid Function: Krude, H.
• Human Fetal Thyroid Function: Polak, M.
• The Role of Thyroid Hormones for Brain Development and Cognitive Function: Rovet, J.F.

Congenital Hypothyroidism

• Neonatal Screening for Congenital Hypothyroidism: Torresani, T.

• Diagnosis, Treatment and Outcome of Congenital Hypothyroidism: Van Vliet, G.; Deladoëy, J.
• Clinical Genetics of Congenital Hypothyroidism: Szinnai, G.
• Central Hypothyroidism in Children: García, M.; Fernández, A.; Moreno, J.C.

Impaired Sensitivity to Thyroid Hormones

• Thyroid Hormone Cell Membrane Transport Defect: Ramos, H.E.
• Resistance to Thyroid Hormone: Onigata, K.; Szinnai, G.

Thyroid and Environment

• Iodine Deficiency in Children: Pearce, E.N.

Autoimmune Thyroid Disease

• Thyroid Autoimmunity: Wiersinga, W.M.
• Clinical Aspects of Hashimoto’s Thyroiditis: Radetti, G.
• Graves’ Disease in Children: Léger, J.

Thyroid Cancer

• Thyroid Nodules and Differentiated Thyroid Cancer: Bauer, A.J.
• Medullary Thyroid Carcinoma in Children: Viola, D.; Romei, C.; Elisei, R.

Clinical Case Seminar

• Clinical Case Seminar in Paediatric Thyroid Disease: Szinnai, G.; Léger, J.; Bauer, A.J.; Pearce, E.N.; Ramos, H.E.; Canalli, M.H.; Onigata, K.; Elisei, R.; Radetti, G.; Polak, M.; Van Vliet, G.; Deladoëy, J.

Author Index
Subject Index

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The current epidemic of diabetes, obesity and related disorders is a driving force in the development of new technologies. Technological advances offer great new opportunities for the treatment of these chronic diseases.

This review presents an update of developments that promise to revolutionize the treatment of diabetes. It examines hospital and outpatient care, intensive insulin therapy, blood glucose monitoring and innovative steps towards the construction of an artificial pancreas.

Providing a comprehensive overview on the latest advances, this volume of Frontiers in Diabetes will be of particular interest to all healthcare providers involved in the daily management of patients with diabetes or related diseases.

Contents

Preface: Grassi, G.

Glycemic Control
• Glucose Control in Diabetes: Targets and Therapy: Bolli, G.B.; Porcellati, F.; Lucidi, P.; Fanelli, C.G.
• Pregnancy and Diabetes: Lapolla, A.; Dalfrà, M.G.
• Management of Hyperglycemia in Hospitalized Patients: Critical Care Setting: Grassi, G.; Bonomo, M.
• Management of Hyperglycemia in Hospitalized Patients: Noncritical Care Setting: Pichardo-Lowden, A.R.

Home Blood Glucose Monitoring
• Self-Monitoring in Diabetes: When and How Much?: Pintaudi, B.; Nicolucci, A.
• Interfering Factors in Quality of Glucose Measurement: Hellman, R.

Continuous Glucose Monitoring
• Continuous Glucose Monitoring: Professional and Real Time: Zisser, H.; Lane, J.E.; Shivers, J.P.
• Real-Time Continuous Glucose Monitoring in Children and Adolescents: Battelino, T.; Dovì, C.; Bratina, N.
• Real-Time Continuous Glucose Monitoring in Adult Outpatients: Bonomo, M.; Grassi, G.; Di Bartolo, P.; Maran, A.

Insulin Delivery System
• Subcutaneous Insulin Pump: Leopore, G.; Tommaselli, L.
• Continuous Subcutaneous Insulin Infusion and Sensor-Augmented Pump Therapy in Children and Adolescents: Rabbone, I.; Frontino, G.; Bonfanti, R.
• Predictive Low Glucose Suspend: An Option for Routine Outpatient Care: Danne, T.; Kordonouri, O.; Thomas, A.

Closed-Loop Insulin-Delivery System
• Artificial Pancreas: A Review of Fundamentals and Inpatient and Outpatient Studies: Del Favero, S.; Bruttomesso, D.; Cobelli, C.

Alternatives to Insulin Injection
• Continuous Intraperitoneal Insulin Infusion from Implantable Pumps: Renard, E.

Devices to Support Treatment Decisions
• Devices to Support Treatment Decisions in Type 1 Diabetics: The Diabeo System: Franc, S.; Charpenties, G.
• Diabetes Interactive Diary: A Mobile Phone-Based Telemedicine System for Carbohydrate Counting and Bolus Calculator: Vespasiani, G.; Rossi, M.C.

Electronic Medical Record
• Standardized Information Exchange in Diabetes: Integrated Registries for Governance, Research, and Clinical Practice: Carinci, F.; Di Iorio, C.T.; Massi Benedetti, M.
• Type 1 Diabetes Care: It's Not All Technology: Reach, G.

Author Index / Subject Index

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At the Cutting Edge

1 The Status of Neuroendocrine Tumor Imaging: From Darkness to Light?
Bodei, L. (Milan); Sundin, A. (Uppsala); Kidd, M. (New Haven, Conn.); Prasad, V. (Berlin);
Modlin, I.M. (New Haven, Conn.)

18 Differentiation of Pluripotent Stem Cells into Hypothalamic and Pituitary Cells
Suga, H. (Nagoya)

Original Papers

25 Efficacy and Cost-Effectiveness of Immediate Surgery versus a Wait-and-See
Strategy for Sporadic Nonfunctioning T1 Pancreatic Endocrine Neoplasms
Cucchetti, A.; Ricci, C.; Ercolani, G.; Campana, D.; Cescon, M.; D’Ambra, M.; Pinna, A.D.;
Minni, F.; Casadei, R. (Bologna)

35 Nasal Oxytocin AdministrationReduces Food Intake without Affecting Locomotor
Activity and Glycemia with c-Fos Induction in Limited Brain Areas
Maejima, Y. (Shimotsuke/Fukushima); Rita, R.S.; Santoso, P. (Shimotsuke); Aoyama, M.
(Utsunomiya); Hiraoka, Y.; Nishimori, K. (Miyagi); Gantulga, D. (Shimotsuke); Shimomura, K.
(Shimotsuke/Fukushima); Yada, T. (Shimotsuke/Osaka)

45 Does Somatostatin or Gastric Inhibitory Peptide Receptor Expression Correlate with
Tumor Grade and Stage in Gut Neuroendocrine Tumors?
Körner, M.; Waser, B.; Reubi, J.C. (Bern)

58 Prognostic Significance of Lymph Node Metastases in Small Intestinal
Neuroendocrine Tumors
Wisinvesky, I. (New York, N.Y.)

66 Effect of Chronic Cabergoline Treatment and Testosterone Replacement on
Metabolism in Male Patients with Prolactinomas
Pivonello, C.; Cariati, F.; Coppola, G.; de Angelis, C.; Colao, A.; Pivonello, R. (Naples)

Rapid Communication

82 Leptin in Depressive Episodes: Is There a Difference between Unipolar and Bipolar
Depression?
Cordas, G.; Gazal, M.; Schuch, E.M.; Spessato, B.C.; Branco, J.; Jansen, K.; Oses, J.P.;
Quevedo, L.A.; Souza, L.D.M.; Pinheiro, R.T. (Pelotas); Portela, L.V. (Porto Alegre); da Silva, R.A.
(Pelotas); Lara, D.R. (Porto Alegre); Kaster, M.P.; Ghisleni, G. (Pelotas)