UNIVERSITÀ
DEGLI STUDI DI MILANO-BICOCCA

COURSE SYLLABUS

Endocrinology A

2425-3-H4101D258-H4101D049M

Aims

The Endocrinology A module (Exercises) aims to discuss the diagnostic framework at the onset of three of the most common endocrine metabolic diseases: type 2 diabetes mellitus, hypothyroidism and hyperthyroidism. All require a holistic management approach. Particular emphasis will be given to two aspects: the physiopathological aspects that make these diseases high impact for the organism as a whole, and the applicability (but also to the possible limits of applicability) of the National Guidelines (ISS Guidelines program) and International Guidelines to develop clinical reasoning applied to Evidence Based Medicine (EBM). The aim is to promote interaction between teacher and student and between student and student thanks to the use of decision-making nodes relating to diagnosis, screening for complications, lifestyle intervention and pharmacological therapy.

Contents

This involves simulating a first outpatient visit of a patient with the first evidence of type 2 diabetes mellitus, hypothyroidism and hyperthyroidism using a path with decision-making nodes that allow for discussion of the symptoms and local and systemic clinical signs of the diseases (in all three conditions the disease manifests itself with important effects on the organism as a whole) and possibly of the complications that may already be present at the time of diagnosis (developing the physiopathological aspects of both the underlying pathology and the complications). The choices of diagnostic laboratory tests as well as instrumental and laboratory tests for screening complications based on EBM will be discussed. At each decision-making node, the transition will be justified according to a physiopathological reasoning but guided by the current Guidelines (with discussion of their importance but also of the limits of applicability in the absence of EBM).

Detailed program

DIABETES AND METABOLISM - Pathogenesis of type 1 and type 2 diabetes, complexity of clinical pictures, physiopathological mechanisms of micro- and macrovascular complications of diabetes and hepatological and systemic consequences. Pathophysiology, clinical manifestations and impact of hypoglycemia. Pathophysiology of obesity and visceral obesity. Global cardiovascular risk, primary and secondary dyslipidemias, arterial hypertension and endocrine arterial hypertension.

Clinical case 1: First-onset TYPE 2 DIABETES MELLITUS: signs and symptoms of diabetes mellitus, possible phenotypes of disease onset, and clinical history of the disease. Clinical screening for microvascular complications (renal disease (proteinuria and non-proteinuric), ocular disease, sensory motor and autonomic neuropathy), and macrovascular and hepatological complications of diabetes mellitus. Rationale and realistic effectiveness of lifestyle intervention (both in primary and secondary prevention). Principles of pharmacological therapy based on objectives aimed at benefit independent of glycemic control ("treat-to-benefit") and dependent on glycemic control and body weight ("treat-to-target"). Extensive discussion is dedicated to the estimation of cardiovascular risk and the need to control the related risk factors (in particular dyslipidemia and arterial hypertension).

Cynic case 2: HYPOTHYROIDISM of first finding: pathophysiology of the hypothalamic-pituitary-thyroid axis, local and systemic signs and symptoms (mainly cardiovascular, neurological, musculoskeletal, metabolic), differential diagnosis of primary hypothyroidism (simple and nodular goiter, chronic thyroiditis on an autoimmune basis, subacute thyroiditis, postsurgical hypothyroidism, iatrogenic hypothyroidism) or secondary, based on laboratory and instrumental radiological diagnostics with emphasis on thyroid ultrasound), principles of replacement therapy

Clinical case 3: HYPERTHYROIDISM of first presentation: pathophysiology of the hypothalamic-pituitary-thyroid axis, local and systemic signs and symptoms (mainly cardiovascular, neurological, musculoskeletal, metabolic), differential diagnosis of primary hyperthyroidism (diffuse and nodular toxic goiter, Basedow, Plummer, iatrogenic hyperthyroidism) or secondary, based on laboratory and instrumental radiological diagnostics with emphasis on ultrasound and thyroid scintigraphy), principles of pharmacological, radiometabolic and surgical therapy

Prerequisites

Prerequisites: Passing the General Pathology and Immunology exam.

Teaching form

The Exercise Module consists of 6 hours of teaching aimed at the entire assembly of students and 6 hours of Exercises, focused on 3 clinical cases, delivered by dividing the students into 4 groups to encourage interaction/interactivity with a smaller number of students. The teachings will all be delivered in "in presence" mode.

Textbook and teaching resource

"Malattie del Sistema Endocrino e del Metabolismo" Giovanni Faglia, Paolo Beck-Peccoz IV edizione giugno 2016, Collana Patologia sistematica medica e chirurgica, Edito da McGraw-Hill ISBN 9788838623929

"Endocrinologia e metabolismo" Giovanni Faglia, Paolo Beck-Peccoz, Anna Spada, Andrea Lania. Edizione 2009, Collana Core Curriculum, Edito da McGraw-Hill. ISBN: 9788838639586.

"HARRISON - Endocrinologia Clinica" J. Larry Jameson Edizione 2007, Edito da McGraw- Hill. ISBN:

9788838639210

Semester

Second semester

Assessment method

Oral exam (in presence): see General Syllabus of the course

Office hours

Teachers receive by appointment requested by email.
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Sustainable Development Goals

GOOD HEALTH AND WELL-BEING | QUALITY EDUCATION | GENDER EQUALITY