

Module II- 1

Diagnosis, classification and presentation of diabetes

Overview

In the past, diabetes was considered to be a single disease. However, it is now clear that diabetes is a heterogeneous metabolic disease caused by many different mechanisms. Diabetes is now categorized based on differences in its aetiology, natural history and clinical characteristics.

Goal

To provide participants with a sound knowledge of the different metabolic disorders of glucose metabolism, the pathogenesis of these, their clinical characteristics and diagnostic criteria

Objectives

After completing this module the participant will be able to:

- Define diabetes mellitus
- Discuss the incidence and prevalence of diabetes globally and locally
- Differentiate between the disorders of glycaemia: impaired glucose tolerance and impaired fasting glucose, type 1 diabetes, type 2 diabetes, other specific types of diabetes (such as MODY, LADA, steroid-induced diabetes), gestational diabetes, diabetes that occurs secondary to other chronic disease in childhood – such as cystic fibrosis, haemoglobinopathies
- Understand the difference between type 1 diabetes and type 2 diabetes in terms of clinical presentation, patient characteristics and pathogenesis
- Describe the role of genetic and environmental factors and immunology in the development of type 1 diabetes
- Describe the role of genetic and environmental factors, obesity, insensitivity to insulin and insulin deficiency in the development of type 2 diabetes
- Describe the emerging trend of type 2 diabetes in young people
- Identify the laboratory investigations used to diagnose diabetes and their appropriate use (fasting blood glucose, post-meal blood glucose, oral glucose tolerance test)
- Describe factors that can affect the accuracy of laboratory investigations

- Discuss the appropriate use of the following tests: c-peptide, insulin antibodies, islet cell antibodies and GAD antibodies assays, as well as urinalysis (urine glucose and ketones) and HbA_{1c} estimation
- Explain the World Health Organization diagnostic criteria for the different disorders of glycaemia
- Describe the natural history of diabetes, including primary and secondary failure of oral blood glucose-lowering agents

Teaching strategies

Case studies, lecture

Suggested time

Lecture: 1-2 hours

Case studies: 1-2 hours

Who should teach this module

Diabetes educator, endocrinologist

Evaluation of learning

Successful completion of case studies

References

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Detailed content for this module is available as a slide presentation at www.idf.org