



UNIVERSITÀ
DEGLI STUDI DI MILANO-BICOCCA

COURSE SYLLABUS

Integrated Medical and Surgical Pathology 2

2122-3-H4101D258

Aims

GASTROENTEROLOGY: Esophageal disease, gastritis, peptic ulcer, gastric cancer. Malabsorption syndromes, Crohn disease, ulcerative colitis, celiac disease. Viral hepatitis, chronic non-virus hepatitis, cirrhosis, portal hypertension. Liver and biliary tract neoplasms. Jaundice. Biliary lithiasis. Colon cancer. Colitis. Irritable bowel syndrome. Colonic diverticulosis. Pancreatitis. Pancreatic cancer. Constipation. Diarrhea. Carcinoid.

ENDOCRINOLOGY: hypothalamic and pituitary disease. Hyperthyroidism and hypothyroidism. Thyroiditis. Goitre. Thyroid cancer. Hyperparathyroidism and hypoparathyroidism. Metabolic bone disease. Corticoadrenal disease and sympathetic adrenergic dysfunction. Growth and sexual differentiation disease. Ovarian and testicular disease. Diabetes and its complications, hypoglycemia. Dyslipidemias and cardiovascular risk. Gout. Obesity. Leanness.

CLINICAL BIOCHEMISTRY 1 AND CLINICAL PATHOLOGY: The goal of the course is to provide the students with the tools for the correct use of biochemical tests, the elements for the comprehension of their physio-pathologic basis and the definition of their indications and interpretation.

SURGERY SEMEIOTIC: abdominal wall hernia. Esophageal cancer. Diaphragm disease and hiatal hernia. Gastric disease. Colon and rectum disease: megacolon, polyposis, diverticulosis, colon-rectum cancer. Anal disease: rectal prolapse, haemorrhoid, fissures, abscess. Biliary and pancreatic disease: gallbladder stones, cystic and solid tumours of the pancreas. Neuroendocrine tumor: carcinoid, gastrinoma, pancreatic endocrine tumors. Multiple endocrine neoplasia.

Contents

The primary goal of the course is to provide students with the pathophysiologic basis to understand digestive, endocrinologic and infectious disease, in order to make correlations between the inner mechanisms of diseases

and their clinical expression. The student will be able to interpret symptoms, signs and laboratory tests as well as radiologic and endoscopic findings. Tools to understand concepts of organ-limited disease, system involvement or systemic disease will be provided.

Detailed program

GASTROENTEROLOGY

MOTOR DISORDER OF THE ESOPHAGUS AND GASTROESOPHAGEAL DISEASE - Achalasia; other hypermotility disorders of the distal esophagus and lower esophagus sphincter; esophageal hypomotility disorders. - Gastroesophageal reflux disease and its complications - Barret's esophagus - Esophageal disorders caused by infection, systemic diseases, radiation, trauma and medications - Dyspeptic disease ACID-RELATED DISEASES - Gastritis and gastropathies - Peptic ulcer and complication - Helicobacter Pylori infection - Zollinger- Ellison's syndrome ABDOMINAL PAIN, CONSTIPATION AND DIARRHEA - Cholelithiasis - Chronic constipation - Acute and chronic diarrhea – Irritable bowel syndrome MALABSORPTION - Maldigestion and malabsorption - Celiac disease UPPER AND LOWER GASTROINTESTINAL BLEEDING - Haematemesis and melena - Haematochezia and lower GI bleeding - Obscure gastrointestinal bleeding INFLAMMATORY BOWEL DISEASES - Ulcerative colitis - Crohn's disease - Indeterminate colitis and microscopic colitis - Diverticular disease ACUTE AND CHRONIC HEPATITIS – viral hepatitis, chronic non-viral hepatitis. Wilson's disease and hemochromatosis - Alcoholic liver disease – Cholestatic liver disease - Metabolic liver disease and steatosis - Drug-induced liver injury CIRRHOSIS AND PORTAL HYPERTENSION - Cirrhosis compensated and decompensated - Portal hypertension - Complication of cirrhosis: ascites, spontaneous bacterial peritonitis, hepato-renal syndrome, gastroesophageal varices, hepatic encephalopathy - Liver transplantation TUMOR OF THE LIVER - Primary and secondary tumours of the liver - Focal nodular hyperplasia - Benign liver lesions - Malignant liver lesions: hepatocellular carcinoma, cholangiocarcinoma, epatoblastoma, emangioendotelioma ACUTE AND CHRONIC PANCREATITIS - Acute and chronic biliary pancreatitis - Others (alcoholic, genetic etc.) – Complications.

ENDOCRINOLOGY

HYPOTHALAMIC AND PITUITARY DISEASES Pituitary Physiology and Diagnostic Evaluation, Pituitary Masses and Tumors: non secreting and secreting (prolactin, GH, TSH, ACTH, FSH/LH), pituitary adenomas, hypopituitarism (panhypopituitarism and selective hormone deficiencies), neuropituitary diseases (diabetes insipidus, Syndrome of Inappropriate Antidiuretic Hormone Secretion) , THYROID DISEASES Hyperthyroidism (Graves-Basedow, Plummer, multinodular goiter), hypothyroidism and thyroiditis, thyroid nodule, thyroid cancer, DISORDERS OF CALCIUM AND PHOSPHORUS METABOLISM AND PARATHYROID DISEASES Hyperparathyroidism, Hypoparathyroidism, pseudohypoparathyroidism, Paget diseases, Osteoporosis. ADRENAL DISEASES Syndrome of Cushing, Addison's Disease, hyperaldosteronism, pheochromocytoma/paraganglioma and endocrine hypertension. REPRODUCTION Physiology and Pathology of the Female Reproductive Axis, Hormonal Contraception, Testicular Disorders, Sexual Dysfunction in Men and Women MULTIPLE ENDOCRINE NEOPLASIA MEN1, MEN2A, MEN2B DIABETES AND METABOLIC DISEASES Type 2 Diabetes Mellitus, Type 1 Diabetes Mellitus, Gestational diabetes, Complications of Diabetes Mellitus, hypoglycaemia, control of energy metabolism, obesity, gout, dyslipidemias, Gastrointestinal Hormones

CLINICAL BIOCHEMISTRY

Liver injury tests: • Patterns of liver injury • Hepatic enzymes, AST ALT GGT ALP • Test for alcoholism • Bilirubin and hyperbilirubinemia • Biochemical test for hepatic fibrosis Laboratory diagnosis of celiac disease. • Indications and interpretation Biochemical markers of osteoporosis. •

Indications and interpretation Laboratory test for thyroid dysfunctions diagnosis and monitoring • Indications and

interpretation Laboratory test for diabetes mellitus diagnosis and monitoring • A1c - diabetes diagnosis and evaluation • Plasmatic and urinary glucose - laboratory vs POCT Microalbuminuria - complication prevision. Autoantibody assays and genetic tests - indications and interpretation Hemocromocytometric analysis • Indications and interpretation Laboratory evaluation of inflammatory state. Indications and interpretation

SEMEIOTICS AND SYSTEMATIC SURGERY

ABDOMINAL WALL HERNIA • inguinal hernia, crural hernia, umbilical hernia, epigastric hernia ESOPHAGEAL DISEASE • Esophageal cancer DIAFRAGM DISEASES • hiatal hernia GASTRIC DISEASES • Gastric cancer COLORECTAL DISEASES • megacolon, polyposis • diverticulosis • colon-rectum cancer • appendicitis ANAL DISEASES • anal disease: rectal prolapse, hemorrhoid, fissures, • abscess. BILIARY TRACT DISEASE • gallbladder stones PANCREAS DISEASE • pancreatic cancer • pseudocysts • intraductal papillary mucinous neoplasms NEUROENDOCRINE DISEASE • carcinoids, gastrinoma • alfa and beta cells tumours • multiple endocrine neuroendocrine tumours.

Prerequisites

Propaedeutic skills

Teaching form

Lectures

Lessons will be provided in presence, subject to any ministerial changes following the COVID pandemic situation

Textbook and teaching resource

GASTROENTEROLOGIA

Manuale di Gastroenterologia UNIGASTRO

Nuova Edizione

Coordinamento Docenti Universitari Malattie dell'Apparato Digerente

Editrice Gastroenterologica Italiana

ISBN 978-88-7781-814-0

SHERLOCK'S DISEASES OF THE LIVER AND BILIARY SYSTEM

Edited By James S. Dooley, Anna S. F. Lok, Guadalupe Garcia-Tsao, Massimo Pinzani

This edition first published 2018.

John Wiley & Sons Ltd

Sleisinger & Fordtran's Gastrointestinal and Liver Disease E-dition. Text

with Continually Updated Online Reference (www.sfgastro.com):

Pathophysiology, Diagnosis, Management & Liver Disease

(Sleisinger/Fordtran).

Eds: Feldman, Mark; Friedman, Lawrence; Brandt, Lawrence J.

ISBN: 978-1-4160-3245-8

ENDOCRINOLOGIA

“Malattie del Sistema Endocrino e del Metabolismo”

Giovanni Faglia, Paolo Beck-Peccoz

IV edizione giugno 20116, Collana Patologia sistematica medica e

chirurgica, Editore da McGraw-Hill

ISBN 9788838623929

“Endocrinologia e metabolismo”

Giovanni Faglia, Paolo Beck-Peccoz, Anna Spada, Andrea Lania.

Edizione 2009, Collana Core Curriculum, Editore da McGraw-Hill.

ISBN: 9788838639586.

“HARRISON - Endocrinologia Clinica”

J. Larry Jameson

Edizione 2007, Editore da McGraw-Hill.

ISBN: 9788838639210,

BIOCHIMICA CLINICA

McPherson RA, Pincus MR Henry's Clinical Diagnosis and Management by Laboratory Methods,

23a edizione in lingua inglese. Ed. Elsevier, 2016 Federici G. Medicina di laboratorio ed McGraw-Hill. IV edizione, 2014 Marshall W, Lapsley M., Day A Clinical chemistry ed Mosby. 8a edizione in lingua inglese. Ed. Elsevier, 2016

SEMEIOTICA CHIRURGICA

Chirurgia Generale (Metodologia, Patologia, Clinica chirurgica)

R. Bellantone, G. De Toma, M. Montorsi Ed.

Minerva Medica, Torino, 2009

Semester

Second semester

Assessment method

Written and oral test

Office hours

See faculty webpage
