

Pathophysiology – lectures

Autumn term 2020 – General medicine & Dentistry

UKB Kamenice 5 – A11/234

Tuesday 17:00 – 18:40

Week	Date	Topic
1	6/10	Pathophysiology of circulatory system I – myocardial metabolism - atherosclerosis - coronary heart disease [Prof. MUDr. Kateřina Kaňková, PhD.]
2	13/10	Pathophysiology of circulatory system II — ischemic heart disease – angina pectoris - acute coronary syndromes – complications of acute myocardial infarction [Prof. MUDr. Kateřina Kaňková, PhD.]
3	20/10	Pathophysiology as a medical discipline – health vs. disease – definition of major concepts (aetiology, pathogenesis, syndrome/symptom etc.) with examples of a topic of circulatory system [Prof. MUDr. Kateřina Kaňková, PhD.]
4	27/10	Pathophysiology of circulatory system III – pressure and volume overload (esp. systemic arterial hypertension, heart and valve defects, cardiomyopathies) - systolic and diastolic dysfunction – heart failure [Prof. MUDr. Anna Vašků, CSc.]
5	3/11	Pathophysiology of respiratory system I – blood gases exchange – ventilation / diffusion / perfusion) disorders – ventilation-perfusion mismatch [Prof. MUDr. Kateřina Kaňková, PhD.]
6	10/11	Pathophysiology of respiratory system II – control of ventilation – respiratory insufficiency syndromes, pulmonary oedema, respiratory distress syndrome, selected restrictive lung diseases [Prof. MUDr. Kateřina Kaňková, PhD.]
7	17/11	<i>Public holiday</i>
8	24/11	Pathophysiology of respiratory system III – obstructive diseases (bronchial asthma and COPD), pulmonary hypertension [Prof. MUDr. Anna Vašků, CSc.]
9	1/12	Pathophysiology of respiratory system IV – disorders of pulmonary circulation – pulmonary hypertension – classification of lung oedemas – pulmonary embolism – surfactant and respiratory distress syndromes – selected restrictive pulmonary diseases [Prof. MUDr. Julie Dobrovolná, PhD.]
10	8/12	Cell × tissue × organ × multicellular organism – regulation of proliferation, differentiation and cell death (necrosis vs. apoptosis in the pathophysiological context), tissue injury – cytokines and chemokines, acute inflammation, acute phase reaction - regeneration × reparation – wound healing and its disorders [Doc. RNDr. Monika Pávková-Goldbergová, PhD.]
11	15/12	Chronic inflammation as a pathologic process – etiopathogenesis, consequences (esp. fibrosis) examples, systemic inflammation (incl. sepsis), multi-organ dysfunction, SIRS, shock [Prof. MUDr. Julie Dobrovolná, PhD.]
12	5/1	Cancer as a systemic disease - paraneoplastic syndromes – cancer cachexia – oncologic emergencies [Prof. MUDr. Anna Vašků, CSc.]
13	12/1	Pathophysiology of kidneys I – glomerular haemodynamic – GFR and its quantification – pathology of glom. filtration membrane – proteinuria, glomerulopathies incl. glomerulonephritis) [Prof. MUDr. Kateřina Kaňková, PhD.]
14	19/1	Pathophysiology of kidneys II – acute kidney injury (AKI) and chronic renal failure [Prof. MUDr. Kateřina Kaňková, PhD.]