

Syllabus
Pathological Physiology 1
Winter Semester 2022/2023
Week 9

General Medicine

A. Lecture

1. Pathogenesis V

- Immunopathology - introduction
- Hypersensitivity – classification; mechanisms
- Immunodeficiency – classification, mechanisms; inborn and acquired immunodeficiencies
- Autoimmunity – pathogenesis; classification; organ/system related and polysystemic disorders

B. Seminars according to schedules on department webpage (patfyz.medic.upjs.sk)

1. **T:** Inflammation
 - Chronic inflammation – etiopathogenesis, forms, characteristics, chronic inflammation and tumors,
2. **S:** Immunopathology
 - Immunology - overview
 - Hypersensitivity – classification; mechanisms
 - Immunodeficiency – classification, mechanisms; inborn and acquired immunodeficiencies
 - Autoimmunity – pathogenesis; classification; organ/system related and polysystemic disorders
3. Examination of knowledge (quiz, oral examination)
4. Presentations of the selected topics according to the group schedules

Dental Medicine

A. Lecture

1. Pathogenesis IV

- Immunopathology - introduction
- Hypersensitivity – classification; mechanisms
- Immunodeficiency – classification, mechanisms; inborn and acquired immunodeficiencies
- Autoimmunity – pathogenesis; classification; organ/system related and polysystemic disorders

B. Seminars according to schedules on department webpage (patfyz.medic.upjs.sk)

1. **T:** Immunopathology
 - Disorders of immunity in dentistry
2. **S:** Immunopathology
 - Immunodeficiency – inborn and acquired immunodeficiencies, HIV and AIDS
 - Autoimmunity – organ/system related and polysystemic disorders
3. Examination of knowledge (quiz, oral examination)
4. Presentations of the selected topics according to the group schedules

Seminars (S) = special topics for discussion; **Tutorials & homeworks & exams (T)** = discussions, consultations, oral and quiz exams on the current topics.

Note: The range of topics and their time-table during the tutorials and seminars in each group is determined by the teacher and to a large extent, by the presentations, consultation interests, questions and readiness of the group and may vary in between groups. Neither tutorials nor seminars are lectures, but dialogue and discussion and thus require an active participation and preparation of students for the topics.

Recommended audiovisual materials

Hypersensitivity

- Type I Hypersensitivity | Clinical Presentation <https://www.youtube.com/watch?v=Y9tlk9-Wj8s>
- Type II Hypersensitivity - Mechanisms (Described Concisely) <https://www.youtube.com/watch?v=dSM-TwWtV0>
- Type III hypersensitivity (immune complex mediated) - causes, symptoms & pathology https://www.youtube.com/watch?v=0T_SAXyMs_c
- Type IV hypersensitivity (cell-mediated) - causes, symptoms, treatment & pathology https://www.youtube.com/watch?v=6wOiDrObk_A
- Food allergy - causes, symptoms, diagnosis, treatment, pathology <https://www.youtube.com/watch?v=WwehfCel36o>
- Allergic Rhinitis - causes, symptoms, diagnosis, treatment, pathology <https://www.youtube.com/watch?v=3YkkNAvd9J4&list=PLMw7FgKp1DgpYCAbqcCJemplAlcLwmgbs&index=23>
- Eczema (atopic dermatitis) - causes, symptoms, diagnosis, treatment, pathology <https://www.youtube.com/watch?v=L5oRHWsJJJA&list=PLMw7FgKp1DgpYCAbqcCJemplAlcLwmgbs&index=6>
- Serum Sickness - causes, symptoms, diagnosis, treatment, pathology <https://www.youtube.com/watch?v=mwplow3yz9Y&list=PLMw7FgKp1DgpYCAbqcCJemplAlcLwmgbs&index=16>

Autoimmunity

- Immune tolerance - An introduction <https://www.youtube.com/watch?v=rHx30H3dUKQ>
- Central T cell Tolerance - Positive and Negative Selection <https://www.youtube.com/watch?v=2jEBTeAgtFY>
- Central B cell Tolerance : Receptor Editing, Clonal Deletion and Anergy <https://www.youtube.com/watch?v=zs1kJ9pxGIw>
- Peripheral T cell Tolerance - Clonal Deletion and Anergy <https://www.youtube.com/watch?v=po9t3F5g-vk>
- Peripheral B cell Tolerance - Anergy https://www.youtube.com/watch?v=XNV-B_lps14
- Systemic lupus erythematosus (SLE) - causes, symptoms, diagnosis & pathology <https://www.youtube.com/watch?v=0jungD4BLH4>

Immunodeficiency

- HIV & AIDS - signs, symptoms, transmission, causes & pathology <https://www.youtube.com/watch?v=5g1ijpBI6Dk>
- Wiskott-Aldrich syndrome <https://www.youtube.com/watch?v=R5ADKNVc6t4&list=PLMw7FgKp1DgpYCAbqcCJemplAlcLwmgbs&index=13>
- Complement deficiency <https://www.youtube.com/watch?v=HewFoP4gNHQ>

Immunopathology in dentistry

- Hereditary Angioedema (Described Concisely) & C-1 Inhibitor Deficiency <https://www.youtube.com/watch?v=7cANkhhw-6l>
- Hereditary angioedema <https://www.youtube.com/watch?v=2AWPreBJAn8>
- Oral Allergy Syndrome <https://www.youtube.com/watch?v=Cv3Y-Uu9Ls4>