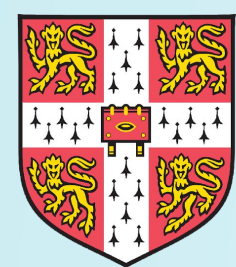
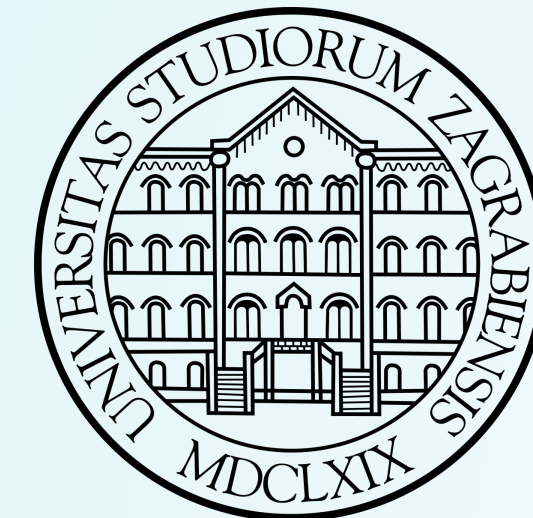




Department of Anatomy and Clinical Anatomy Institute of Anatomy „Drago Perović“



UNIVERSITY OF
CAMBRIDGE





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**Department of Anatomy and Clinical Anatomy
Institute of Anatomy „Drago Perović“**





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12. January 1918.

dr. Drago Perović

„Teaching and research approaches in anatomy“





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dr. Drago Perović



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TEACHING WAS SACRED

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Perović devoted himself entirely to the education of students. Often he made preparations during night so that they would be ready the next day for lectures.

He sacrificed absolutely.

Teaching had to be perfect while everything else was secondary.

dr. Drago Perović



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1. POEPLJE

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Memorial Perović-Krmpotić





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1. PEOPLE
2. CLINICALY ORIENTED
3. RESEARCH EXCELENCE

Toldt-Hochstetter

Anatomischer Atlas

Sechzehnte Auflage




Erster Band

Gegenden des menschlichen Körpers
Knochen · Bänder · Muskeln

Anatomischer Atlas : topographische und systematische Anatomie des Menschen in zwei Bänden / 1 Skelettsystem, Kopf- und Halseingeweide.

Author: [Carl Toldt](#); [Ferdinand Hochstetter](#); [Jelena Krmpotić-Nemanić](#)

Publisher: München [u.a.] : Urban & Schwarzenberg, 1979.

Edition/Format:  Book : German : 27. Aufl. / überarb. und hrsg. von Jelena Krmpotić-Nemanić [View all editions and formats](#)

Database: WorldCat

Rating: (not yet rated) [0 with reviews - Be the first.](#)

Subjects [Anatomie.](#)
[Atlas.](#)





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Int. J. Dev. Biol. 35: 215-230 (1991)

215

Zagreb research collection of human brains for developmental neurobiologists and clinical neuroscientists

IVICA KOSTOVIC, MILOŠ JUDAS, LJILJANA KOSTOVIC KNFZEVIC, GORAN SIMIC,
IVANA DELALLE, DARKO CHUDY, BORIS SAJIN and ZDRAVKO PETANJEK

*Section of Neuroanatomy, Department of Anatomy, School of Medicine, University of Zagreb
and Croatian Institute for Brain Research, Zagreb, Republic of Croatia, Yugoslavia*

**The Zagreb Skull Collection –
The Unique Identified Collection of
Human Skulls from Fetuses to Centenarians
Annals of Anatomy**

One of the largest collections of human brains in the world consisting of 1,300 developing (6 pcw) and adult brains (91 years). It has served as a valuable resource for many research projects, more than 30 PhD theses and upwards of 200 publications.

Containing 386 sets of separated skull bones from the early fetal period to adulthood and the Collection of Skulls containing 742 skulls (age range 4-101 years).

It has served as a valuable resource for many research projects, more than 10 PhD theses and upwards of 100 publications.



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Histology and embryology

separate Course in the 4th semester
Department for Histology and Embryology

1987

Principles of neuroscience (*including central nervous system anatomy*) –
Semester 3

Department for neuroscience

Gross anatomy

Semester 1 ad 2

150-250 teaching hours

Group

25 students (240-360 students)

- Guided by same teachers
- Classical learning material
- Topographic anatomy
- Cadaver work

2002.

Anatomy and Clinical Anatomy - Medical Studies in English

- Moore's Clinically oriented anatomy
- Gray's anatomy for students

2009.

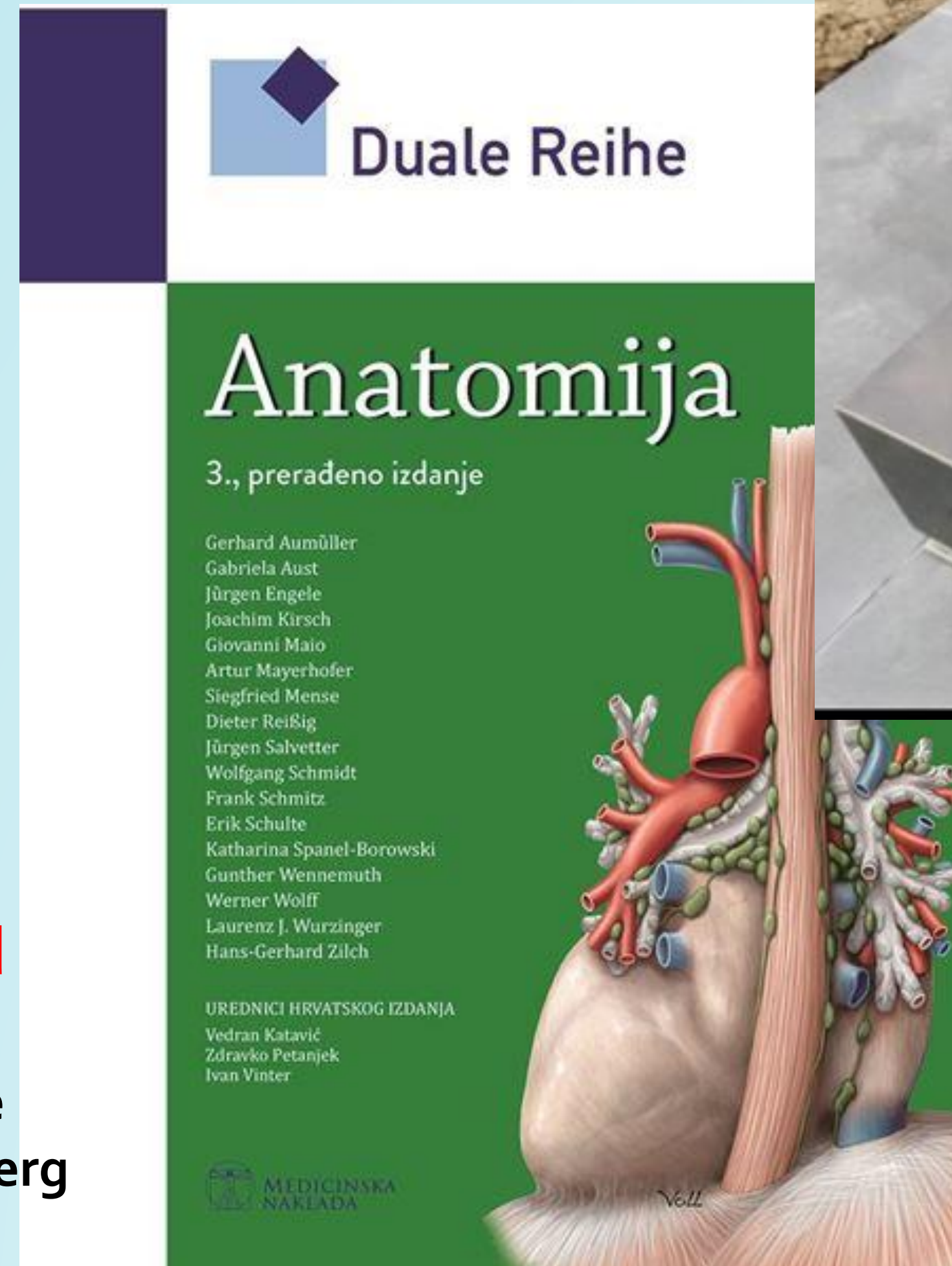
Anatomy (Croatian studies)

- Waldeyer – Anatomie des Menschen

2014. – strategic decision

- Functionally oriented anatomy
- Cadaver Work – dissection performed by students

School of Medicine
University of Heidelberg





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Besides COVID-19 pandemic, the center of Zagreb was directly hit by a strong earthquake on **March 22, 2020**, at 6.23am. No other institution in Croatia was so badly damaged as the Basic Medicine Campus of the School of Medicine at Salata

<http://cloud.hiim.hr/owncloud/index.php/s/dEnuE5FDhVgNa5p>

However, the research work and teaching was never interrupted. By the end of the year **2020**, at **December 29**, the second, even stronger earthquake hits region in close vicinity to Zagreb causing additional damage to anatomy building.





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June 2020, Department of Anatomy,
School of Medicine, Zagreb





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June 2020,
Department of Anatomy,
School of Medicine, Zagreb





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June 2020,
Department of Anatomy,
School of Medicine, Zagreb





The anatomy lesson of the SARS-CoV-2 pandemic: irreplaceable tradition (cadaver work) and new didactics of digital technology

E-course - guides the student through learning Platform for e-learning (LMS)

- 250 video lectures (most of them lasting 20-30 minutes),
- 21 rehearsal rooms with several thousand pictures,
- 33 clinical cases,
- 24 practice colloquia
- 1500 other teaching contents, teaching texts, presentations and links to animations.

¹Department of Anatomy and Clinical Anatomy, University of Zagreb School of Medicine, Zagreb, Croatia



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ELSEVIER

Annals of Anatomy

journal homepage: www.elsevier.com/locate/aanat

Research article

In the eye of the beholder – how course delivery affects anatomy education

Ivan Banovac^{a,b}, Nataša Kovačić^{a,c}, Ana Hladnik^{a,b}, Andrea Blažević^{a,b}, Ivana Bičanić^{a,b}, Zdravko Petanjek^{a,b}, Vedran Katavić^{a,c,*}

^a Department of Anatomy and Clinical Anatomy, University of Zagreb School of Medicine, Zagreb, Croatia



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**“Teaching oriented” –
Role of teacher is to teach.
Student’s “follow” teachers.**



**“Learning oriented” –
Role of teacher is to coach.
Teachers “direct and follow” student’s.**

Medical Studies on Croatian**Lectures: 50****Seminar: 50****Practicum: 120****Total hours: 220****ECTS points 24****300 students****Medical Studies on English****Lectures: 50****Seminar: 100****Practicum: 100****Total hours: 250****ECTS points 25****60 students****A1 – General anatomy, systemic and topographical anatomy of the back and limbs****A2 – Systemic and topographic anatomy of the trunk****A3 – Systemic and topographical anatomy of the head and neck**

Course structure:

Semester 1 (October-December) – 10 week's (1+10+1)

In parallel with Medical physics and Medical biology

A1 – General anatomy, systemic and topographical anatomy of the back and limbs

Semester 2 (February-June) – 16 weeks's (8+8+1)

In parallel with Medical chemistry

A2 – Systemic and topographic anatomy of the trunk

A3 – Systemic and topographical anatomy of the head and neck

FLIPED CLASSROOM (e-learning platform – LMS)

Continuous assessment of knowledge:

- activities in classes,
- practice colloquiums (written, practical and oral knowledge test) and repetitions that are carried out through the LMS.

Practice colloquiums colloquiums includes a test of the skills of anatomical dissection.

Students are assigned a grade in each teaching block (A1, A2, A3).

The average grade of the continuous assessment of knowledge through classes is defined, which **participates in the formation of the final grade** (weight coefficient: 0.12).

Access to all forms of continuous knowledge assessment **is mandatory** - it serves as an indicator of progress in mastering the material (self-evaluation).

Practical thematic colloquia

At the end of each teaching block (A₁, A₂, A₃), mandatory practical thematic colloquia are organized – **assessment of recognition and naming of anatomical structures (70% for passing)**.

Students who do not pass all three practical thematic colloquia must take a complete (large) practical colloquium. Successful completion of the complete (large) practical colloquium is a **condition for applying for the exam**.

Partial written exams

At the end of each teaching block, a partial written exam (A₁, A₂, A₃) is organized.

To pass – at least **45%** of points per partial written exam and at least **61% of the total** number of points.

Student who achieves a positive grade on the partial written exams is **exempt from taking the final written exam**.

Partial written exams are conducted via the LMS as supervised distance written exams.



x COURSE CONTENTS

- A1 P4 - Vertebrae
- A1 Repetitorium 1 - Bones ...
- > Week 3
- > Week 4
- > Week 5
- ▼ Week 6
- A1 Self-evaluation quiz 5
- A1 S3 - Biomechanics of th...
- A1 L8 - The brachial plexus
- A1 Repetitorium 4 - Blood v...
- > Week 7
- > Week 8
- > Week 9
- > Week 10
- ▼ Week 11

PREPARATION

Before coming to the A1S3 seminar 1, you should:

1. Read the [Learning outcomes](#)
2. Study the video materials:
 - [Biomechanics of the knee](#) (Katavić, 18 min)
3. Read the following chapter in your textbook: [Chapter 7](#) (Lower limb)
4. Read the obligatory textbook extensions on: [Ankle joints](#)
5. Solve the [Self-assessment quiz 5](#)

INTERACTION

For the interaction during the A1S3 seminar, you need to bring your:

1. Smartphone/tablet/laptop
2. Notebook for sketching and note keeping
3. Textbook and atlas

ACTIVITY

After the A1P3 seminar, you should do the following activity to improve your recall:

1. Re-read the [Chapter 7](#) (Lower limb)
2. Read the [learning outcomes](#) for the Clinical cases 1.
3. Solve the Clinical cases 1 - injuries of the joints and muscles of the lower limb:
 - [Clinical case 1a](#)
 - [Clinical case 1b](#)
 - [Clinical case 1c](#)

Last modified: Friday, 4 November 2022, 10:48 PM

FLIPED CLASSROOM (e-learning platform – LMS)

- COURSE CONTENTS
- Clinical cases - notifications
 - A1 Clinical cases
 - A2 Clinical cases
 - A2 Clinical case 1a
 - A2 Clinical case 1b
 - A2 Clinical case 2a
 - A2 Clinical case 2b**
 - A2 Clinical case 3
 - A2 Clinical case 4a
 - A2 Clinical case 4b
 - A3 Clinical cases
 - A3 Clinical case 1
 - A3 Clinical case 2
 - A3 Clinical case 3

Done: View
 To do: Spend at least 30 mins on this activity
 To do: Go through the activity to the end
 To do: Receive a grade
 To do: Receive a passing grade

Opened: Friday, 24 March 2023, 5:00 PM

Deadline: 3rd February at 23:59 h

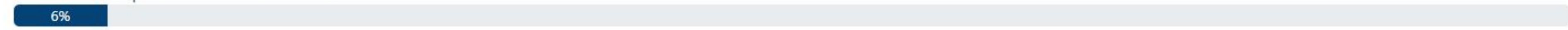
You have earned 1 point(s) out of 1 point(s) thus far.

Which of the following arteries is (in most cases) a branch of the right coronary artery?

- r. interventricularis anterior
- r. marginalis sinister
- r. circumflexus
- r. interventricularis posterior
- r. lateralis

Submit

You have completed 6% of the lesson



- COURSE CONTENTS
- Clinical cases - notifications
 - A1 Clinical cases
 - A2 Clinical cases
 - A2 Clinical case 1a
 - A2 Clinical case 1b
 - A2 Clinical case 2a
 - A2 Clinical case 2b**
 - A2 Clinical case 3
 - A2 Clinical case 4a
 - A2 Clinical case 4b
 - A3 Clinical cases
 - A3 Clinical case 1
 - A3 Clinical case 2
 - A3 Clinical case 3

Done: View
 To do: Spend at least 30 mins on this activity
 To do: Go through the activity to the end
 To do: Receive a grade
 To do: Receive a passing grade

Opened: Friday, 24 March 2023, 5:00 PM

Deadline: 3rd February at 23:59 h

You have earned 1 point(s) out of 2 point(s) thus far.

Which of the following arteries is (in most cases) a branch of the right coronary artery?

Your answer :

r. interventricularis anterior

Response:

Your answer is NOT correct.

R. interventricularis anterior is a terminal branch of the left coronary artery.

Continue

- COURSE CONTENTS
- Clinical cases - notifications
 - A1 Clinical cases
 - A2 Clinical cases
 - A2 Clinical case 1a
 - A2 Clinical case 1b
 - A2 Clinical case 2a
 - A2 Clinical case 2b**
 - A2 Clinical case 3
 - A2 Clinical case 4a
 - A2 Clinical case 4b
 - A3 Clinical cases
 - A3 Clinical case 1
 - A3 Clinical case 2
 - A3 Clinical case 3

Done: View
 To do: Spend at least 30 mins on this activity
 To do: Go through the activity to the end
 To do: Receive a grade
 To do: Receive a passing grade

Opened: Friday, 24 March 2023, 5:00 PM

Deadline: 3rd February at 23:59 h

You have earned 2 point(s) out of 2 point(s) thus far.

Which of the following arteries is (in most cases) a branch of the right coronary artery?

Your answer :

r. interventricularis posterior

Response:
CORRECT.

Although r. inteentricularis posterior can be a branch of the left coronary artery (in this case it branches from the r. circumflexus), more often it is a branch of the right coronary artery.

Continue

COURSE CONTENTS

- Clinical cases
 - Clinical cases - notifications
 - A1 Clinical cases
 - A2 Clinical cases
 - A2 Clinical case 1a
 - A2 Clinical case 1b
 - A2 Clinical case 2a
 - A2 Clinical case 2b**
 - A2 Clinical case 3
 - A2 Clinical case 4a
 - A2 Clinical case 4b
 - A3 Clinical cases
 - A3 Clinical case 1
 - A3 Clinical case 2
 - A3 Clinical case 3

Opened: Friday, 24 March 2023, 5:00 PM

Deadline: 3rd February at 23:59 h

You have earned 6 point(s) out of 6 point(s) thus far.

Learning outcomes

1. Describe the supply areas of the left and right coronary arteries and their branches
2. Describe the most clinically significant variations of the coronary supply to the myocardium
3. Classify the types of coronary supply depending on the origin of the branch, r. interventricularis posterior
4. Connect the location of the clot in the coronary arteries with the sites of myocardial injury
5. Differentiate the consequences of a heart attack on the myocardium and the conduction system in the supply area of the left and right coronary arteries
6. Explain the phenomenon of referred pain using the example of myocardial infarction.

Clinical case





COURSE CONTENTS

- ▼ Clinical cases
 - Clinical cases - notifications
 - > A1 Clinical cases
 - ▼ A2 Clinical cases
 - A2 Clinical case 1a
 - A2 Clinical case 1b
 - A2 Clinical case 2a
 - **A2 Clinical case 2b**
 - A2 Clinical case 3
 - A2 Clinical case 4a
 - A2 Clinical case 4b
 - ▼ A3 Clinical cases
 - A3 Clinical case 1
 - A3 Clinical case 2
 - A3 Clinical case 3

Opened: Friday, 24 March 2023, 5:00 PM

Deadline: 3rd February at 23:59 h

You have earned 6 point(s) out of 6 point(s) thus far.

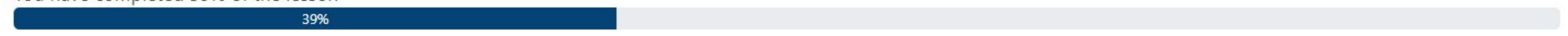
Clinical case

A 59-year-old man comes to the emergency department complaining of chest pain and shortness of breath. He describes the pain as "like someone is sitting on his chest" and he cannot clearly locate it. He also describes that the pain spreads to his left shoulder and left upper arm.

The diagnostic work-up found that there are no pathological findings on the lungs, while the electrocardiogram (ECG, diagnostic recording of the heart's electrical activity) shows significant changes that indicate an injury to the interventricular septum and the anterior and lateral walls of the left ventricular myocardium.

Questions for discussion

You have completed 39% of the lesson





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Dubravko Jalšovec

Anatomia humana



NAKLADA SLAP



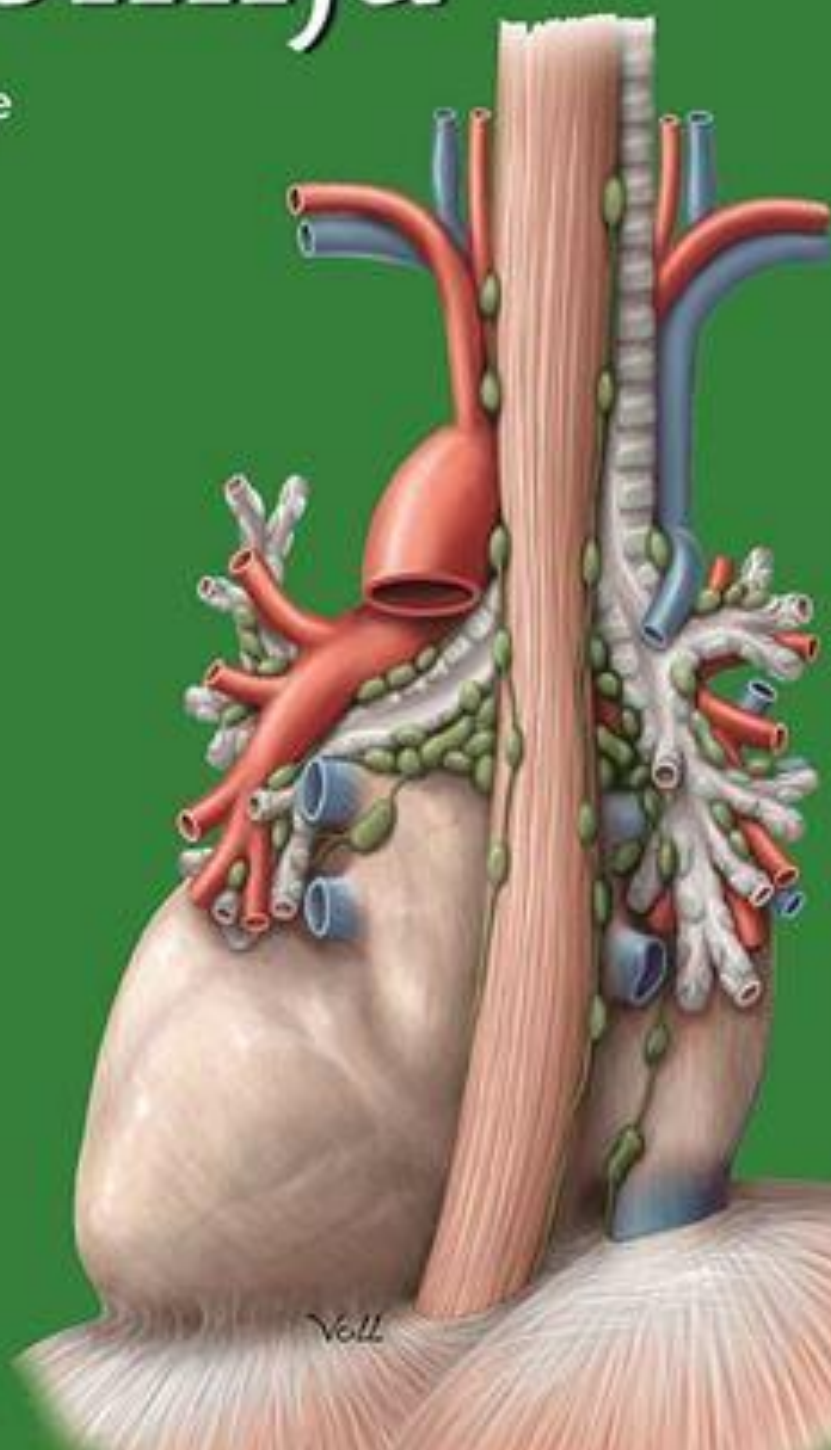
Duale Reihe

Anatomija

3., prerađeno izdanje

Gerhard Aumüller
Gabriela Aust
Jürgen Engele
Joachim Kirsch
Giovanni Maio
Artur Mayerhofer
Siegfried Mense
Dieter Reißig
Jürgen Salvetter
Wolfgang Schmidt
Frank Schmitz
Erik Schulte
Katharina Spänel-Borowski
Günther Wennemuth
Werner Wolff
Laurenz J. Würzinger
Hans-Gerhard Zilch

UREDNICI HRVATSKOG IZDANJA
Vedran Katavić
Zdravko Petanjek
Ivan Vinter



KOMPENDIJ PEROVIĆEVE ANATOMIJE

Predrag Keros i suradnici

Zagreb, 2019.





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Practice colloquia

Question card (scenario)

- You will perform anatomical dissection of a topographical region.
- Approach the cadaver and prepare the cadaver and instruments for dissection.
- You have 30 minutes to conduct anatomical dissection of the given topographical region.
- After finishing dissection, tidy up the workplace.



Question card (scenario)

Regio glutealis

- Demonstrate the boundaries of the gluteal region and the openings in the gluteal region.
- Identify which muscles of the gluteal region are already shown and reflected.
- Demonstrate the topographic relationships of the structures in the gluteal region.
- Begin anatomical dissection of the gluteal region.
- Use blunt preparation techniques to mobilize / visualize the remaining muscles of the gluteal region.
- Use sharp dissection techniques to cut the appropriate muscles of the gluteal region.
- Use fine dissection techniques to visualize the blood vessels and nerves of the gluteal region.





1	Correctly approaches the preparation of the body for anatomical dissection (takes reusable scalpels and containers, removes coverings, drains fluid, places coverings so that fluid does not drip on the floor)	0	1
2	Holds anatomical tweezers correctly	0	1
3	Holds the scalpel correctly during sharp preparation	0	1
4	Demonstrates correct sharp preparation technique	0	1
5	Holds the scalpel correctly during blunt dissection	0	1
6	Demonstrates correct blunt preparation technique	0	1
7	Correctly shows the boundaries of the topographic region	0	1
8	Correctly names the structures in the topographic region by layers	0	1
9	Correctly describes the topographic relationships of anatomical structures	0	1
10	Demonstrates correct fine preparation technique	0	1
11	Correctly displays anatomical structures in the topographic region	0	1
12	Shows the continuity of structures in the topographic region	0	1
13	Properly disposes of mixed waste	0	1
14	Properly disposes of sharp waste	0	1
15	Properly disposes of biological waste	0	1
16	Properly closes the workplace (wets and covers the body, wipes the floor, disposes of used instruments and containers)	0	1
17	Overall impression: overall dissection skill, professionalism, theoretical knowledge	0	1 2 3 4

Name and surname of the student: _____

The topographic region being dissected: _____

		Points	
1	Correctly approaches the preparation of the body for anatomical dissection (takes reusable scalpels and containers, removes coverings, drains fluid, places coverings so that fluid does not drip on the floor)	0	1
2	Holds anatomical tweezers correctly	0	1
3	Holds the scalpel correctly during sharp preparation	0	1
4	Demonstrates correct sharp preparation technique	0	1
5	Holds the scalpel correctly during blunt dissection	0	1
6	Demonstrates correct blunt preparation technique	0	1
7	Correctly shows the boundaries of the topographic region	0	1
8	Correctly names the structures in the topographic region by layers	0	1
9	Correctly describes the topographic relationships of anatomical structures	0	1
10	Demonstrates correct fine preparation technique	0	1
11	Correctly displays anatomical structures in the topographic region	0	1
12	Shows the continuity of structures in the topographic region	0	1
13	Properly disposes of mixed waste	0	1
14	Properly disposes of sharp waste	0	1
15	Properly disposes of biological waste	0	1
16	Properly closes the workplace (wets and covers the body, wipes the floor, disposes of used instruments and containers)	0	1
17	Overall impression: overall dissection skill, professionalism, theoretical knowledge	0	1 2 3 4

Free comment (optional):

Points: _____

Examiner: _____



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Final exam

- collective written part that precedes an
- individual check of practical (practical part of the exam) and theoretical knowledge (oral exam) through three stations corresponding to thematic blocks (A1, A2, A3).

A separate grade (2-5 on one decimal place) is defined for each part (written part of the exam, station A1, station A2 and station A3). **Each station is examined by different examiner.**

The final grade is the **weighted average of the grades** of individual parts of the final exam and the grade of the continuous knowledge assessment, and is calculated according to the following formula:

0.22 × final written exam

0.22 × A1 station

0.22 × A2 station

0.22 × A3 station

0.12 × continuous knowledge assessment

A1 – Exam card 1

Practical part of the exam

1. Determine the parity of one bone of the limb. Explain your answer.
2. On the bone, name and show the attachments (origin and insertion) of one muscle of the limb (chosen by the examiner).
3. Identify one typical vertebra (cervical, thoracic or lumbar) and explain your answer.
4. Demonstrate specific movements of selected body parts (movements of the thumb, fingers, the scapula, mandibula, and the shoulder girdle).
5. On the topographic cross-section **1** name and show one structure chosen by the examiner.

A1 – Exam card 1

Oral part of the exam

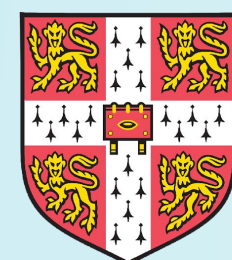
1. Compare lining and glandular epithelium and give examples of organs and structures in which these types of epithelia are found. Compare the structure and function of epithelial and connective tissues.
2. Compare the mobility of the hip joint with that of a typical ball and socket joint.
3. Describe the location and boundaries of the axillary fossa and its communications (including the foramen triangulare, foramen quadrangulare and the triceps cleft), content, and topographic relationships. Sketch the axillary openings and the triceps cleft.
4. Compare the continuous and discontinuous joints of the vertebral column, describe their structure and mobility.
5. In a patient, n. fibularis communis has been injured as it passes around the head of the fibula. Correlate the injury with the corresponding sensory and motor defects. Compare this injury with the injury within the sulcus cruris medialis.



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