**Methodical instructions for students to work independently**

**on preparation for practical lessons on the cycle**

**«HOSPITAL SURGERY»**

**Practical lesson № 10**

1. **Theme of the lesson: «Thrombosis and embolism of the main arteries».**
2. **Purpose:**

The student should know:

• anatomy and physiology of the Thrombosis and embolism of the main arteries,

• the etiology and pathogenesis of Thrombosis and embolism of the main arteries,

• the etiology and pathogenesis of complications of the disease;

• сlinic of these diseases and their complications,

• methods for diagnosing these diseases,

• principles of conservative and operative treatment of these diseases.

The student should be able to:

• сollect an anamnesis of the disease and life, observing the rules of medical ethics and deontology in patients;

• to examine patients with Thrombosis and embolism of the main arteries and its complications;

• make a plan for additional studies (laboratory and instrumental), evaluate the data of examination of patients with pathology of the Thrombosis and embolism of the main arteries;

• conduct differential diagnosis of Thrombosis and embolism of the main arteries with other diseases of the abdominal cavity;

• formulate a diagnosis according to ICD-10;

• plan conservative treatment, determine indications for surgery for these diseases and their complications;

• to choose the optimal tactics of conservative and surgical treatment for these diseases and their complications;

• determine the plan for postoperative management of patients with this pathology, provide emergency care;

• decide practical problems in diagnostics, conservative and operative treatment, in patients with this pathology.

The student must know the methods:

• analysis and interpretation of clinical and laboratory results and instrumental examination of patients;

• writing a patient's medical record with the pathology of the Thrombosis and embolism of the main arteries;

• use of the algorithm for diagnosing (primary, concomitant, complications) taking into account the International Statistical Classification of Diseases (ICD-10);

• performance of the main diagnostic measures for the detection of urgent and life-threatening conditions in the pathology of the Thrombosis and embolism of the main arteries;

• performing of the main medical measures in the pathology of the Thrombosis and embolism of the main arteries;

• the choice of surgical treatment in accordance with the diagnosis, the algorithm for choosing medicamentous therapy for patients with pathology of the Thrombosis and embolism of the main arteries.

1. **Questions for self-preparation:**

1. Anatomy of the aorta, iliac, femoral, subclavian, brachial arteries.

2. Etiology, pathogenesis of acute arterial thrombosis.

3. Reperfusion syndrome in restoring blood flow to the extremities.

4. Clinic of acute arterial obstruction, depending on the level of occlusion.

5. Instrumental diagnostics of occlusal lesions of arterial vessels (ultrasound, dopplerography, angiography).

6. Differential diagnosis of embolism, arterial thrombosis and deep vein thrombophlebitis of lower extremities.

7. Surgical treatment for embolism, thrombosis.

8. Reconstructive surgery for atherosclerotic lesions of the aorta, iliac, femoral, tibial arteries.

1. **Basic concepts of the topic:**

1. thromboendocarditis of the left side of the heart

2. Vegetations on valves

3. atherosclerosis of the aorta

4. aortic aneurysm

5. thrombosis of pulmonary veins

6. change in blood composition

7. hypertensive disease

8. violation of blood flow

9. ischemia of stress

10. Sharp pain

11. pallor of the skin

12. decrease in skin temperature

13. Decreased sensitivity

14. absence of pulsation of arteries

15. angiography

16. embolectomy

17. Thrombenderterectomy

18. amputation of limb

19. X-ray endovascular dilatation of arteries

20. disaggregants

21. antispasmodics

22. anticoagulants

23. fibrinolysis activators

24. Gangrene of the limb

1. **Literature**

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| Main literature | Rajgopal, Shenoy KManual of Surgery [Текст] = Руководство по хирургии : руководство / Shenoy K Rajgopal. - 7-е изд. - New Delhi : GBS Publishers & Distributiors (Pvt.) Ltd., 2009. - 827 с. : ил. - ISBN 81-239-1237-4 : 1200.00 р., 660.00 р.  Перевод заглавия: Руководство по хирургии |
| Additional literature | 1. Surgical diseases "/ MI Kuzin, 2015. - 992  2. Surgical diseases: textbook / ed. A.F. Chernousov. - Moscow: GOETAR-Media, 2010. - 664 .: ill. + CD. |

1. **Chronocard lessons.**

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| №  п/п | Stages and contents of the lesson | Мethods and forms | Time |
| 1  1.1  1.2  1.3 | Introductory part of the lesson  Announcement of the topic, objective of the lession.  Evaluation of the readiness of the audience, equipment and students.  Characteristics of the stages and content of the work of students in lesson | Сonversation | 5 minutes |
| 2 | Detection of basic (theoretical) knowledge of students (answers to questions, test tasks, interview). | Interview, survey, testing | 35  minutes |
| 3 | Independent work of students under the supervision of the teacher (evaluation of the results of the examination of patients, the decision of situational problems, the analysis of clinical cases, the construction of diagnostic and therapeutic algorithms). | Work in small groups | 60  minutes |
| 4 | Quality control of students 'knowledge on the topic of the lession (interview, solving of situational tasks, listening to abstracts, discussion of results of students' out-of-class work). | Interview, survey, testing | 70  minutes |
| 5  5.1  5.2  5.3 | The final part of the lesson:  Conclusions on the topic.  Evaluation of the work of students in lession.  Homework for the next lesson | Conversation, individual rating | 10  minutes |

1. **Independent work of students.**

7.1. The sequence of preparation for a practical lesson

-To study the text of the lectures, the plan for the practical lesson, the content of the training questions, the list of literature.

-Make a plan for the preparation for the lesson.

- Choose in the library literature, which is recommended for preparation for the lesson.

- Read the contents of the book or article.

- Carefully read the educational material.

- Write a short summary, abstracts of the speech, make notes in the notebook.

- For each issue of the seminar, the student should be ready to express his opinion.

In preparation for the lesson, it is possible to use databases, information and reference systems and search engines - Internet resources, for example:

- Medline.ru Magazine and International Suspension System [www.medline.ru/medsearch/](http://www.medline.ru/medsearch/)

- Consilium Medicum website <http://consilium-medicum.com/>

- Annals of Internal Medicine - [www.acponline.org/journals/annals/annaltoc.htm](http://www.acponline.org/journals/annals/annaltoc.htm)

- Annual Review of Medicine - [www.www.biomedical.annualreviews.org/current/8.shtml](http://www.www.biomedical.annualreviews.org/current/8.shtml)

- Swiss Medical Weekly - [www.smw.ch/index.html](http://www.smw.ch/index.html)

7.2. Preparation of the abstract and its protection (1 abstract during the module)

topic of the abstract:

1. Features of the clinic and diagnosis of complicated and uncomplicated colon cancer.

2. Principles of conservative and surgical treatment of colon cancer.

3. Features of the clinic and diagnosis of NNC.

4. Clinic, diagnosis and treatment of Crohn's disease.

5. Benign tumors of the colon.

6. Features of surgical treatment of diseases of the colon.

The abstract text should consist of:

1. Abstract Plan

2. Etiology and pathogenesis of the disease.

3. Classification of the disease.

4. Methods of diagnosis (clinical, laboratory, instrumental)

5. Differential diagnostics

6. Methods of treatment:

- Conservative

- Operational

7. Conclusion

8. References.

* 1. Additional independent work of the student.

- Formation of test tasks for the topics studied

- Formation case-stady

- Conducting research work

- Presence at the conference.