THE ROLE AND IMPORTANCE OF TEACHING UROLITHIASIS IN MEDICAL EDUCATION

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Annotation. This article discusses the use of modern pedagogical technologies and methods in teaching urology students about urolithiasis. It highlights the importance of incorporating both theoretical and practical lessons, allowing each participant to complete various tasks during the educational process. Teaching urolithiasis in medical education plays a crucial role in developing physicians' skills in accurately diagnosing and treating this widespread urological disease. By studying the etiology, pathogenesis, clinical manifestations, diagnostics, and modern treatment methods of this condition, medical students and specialists can provide high-quality medical care to patients. Additionally, the article emphasizes the significance of developing preventive measures to reduce the incidence and complications of kidney stone disease as an essential aspect of medical education.

Keywords: urology, student, training, professional competence, development, improvement, pedagogical, problem, relevance, urolithiasis, disease, significance, education, and upbringing process.

1. Implementing Problem-Based Learning (PBL)

Students are tasked with analyzing real clinical cases, diagnosing, and developing treatment plans.

Discussions are conducted in small groups, where each student must scientifically justify their opinions.

2. Establishing Simulations and Virtual Laboratories

Using 3D models to explain the structure of the urinary system and the mechanism of kidney stone formation.

Providing students with opportunities to practice endourological and laparoscopic procedures through virtual surgical simulators.

3. Organizing Interactive Lectures and Seminars

Engaging students in discussions based on clinical cases to reinforce theoretical knowledge.

Explaining the etiology and pathogenesis of urolithiasis using graphic animations and video materials.

4. Utilizing Telemedicine and Online Consultations

Students can connect with expert physicians in real-time to analyze actual patient cases.

Various cases are discussed through online consultations and telemedicine platforms.

5. Collaborative Projects and Research Activities

Students can conduct research on urolithiasis and participate in international conferences.

Developing preventive measures and conducting awareness campaigns within communities.

6. Applying Gamification and Test Technologies

Integrating electronic test systems, clinical puzzles, and quizzes to reinforce student knowledge.

Enhancing motivation and assessing comprehension levels through game-based learning elements.

7. Clinical Practice and Patient Interaction

Students engage directly with patients to collect anamnesis, conduct physical examinations, and interpret laboratory and instrumental investigations.

Modern Treatment Methods for Urolithiasis – Practical Training in Laser Lithotripsy, Endourological, and Laparoscopic Procedures.

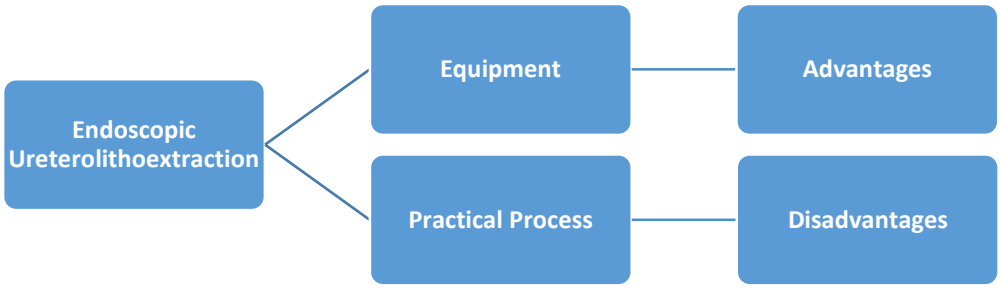
This scientific article is rich in content, scientifically grounded, integrated with practical applications, and covers relevant topics. It serves as a highly valuable resource for medical university students. The implementation of modern pedagogical technologies in the educational process contributes to the development of students' professional competence, the integration of theoretical knowledge with practice, and the mastery of innovative medical techniques. Therefore, this educational guide is recommended for medical university students and general practitioners.

Applying Modern Pedagogical Technologies in Teaching Endoscopic Ureterolithoextraction and Contact Lithotripsy.

The effective teaching of endoscopic ureterolithoextraction and contact lithotripsy in urology requires the integration of modern pedagogical technologies. These technologies play a crucial role in enabling students to deeply comprehend the subject, develop analytical thinking skills, and enhance independent learning processes. Below are some interactive and innovative approaches to effectively present this topic.

1. Application of Cluster Technology:

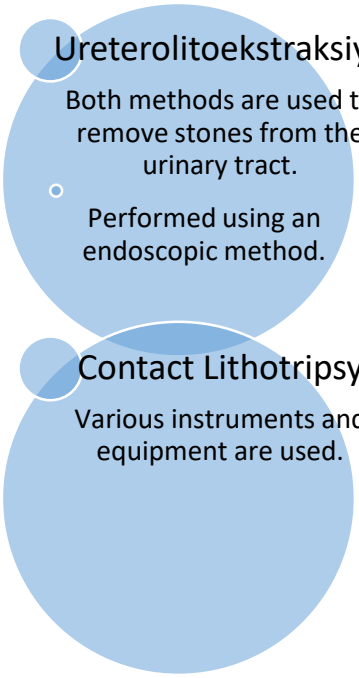
A cluster is a network-shaped graphical representation that helps to group key and additional ideas around a specific concept. Using the following cluster, the main concepts of Endoscopic Ureterolithoextraction and Contact Lithotripsy can be highlighted.



This method helps students better understand the topic and recognize the connections between concepts.

2. Venn Diagram

The Venn diagram is an effective method for highlighting similarities and differences within a topic. The following Venn diagram can be used to compare Ureterolithoextraction and Contact Lithotripsy.



Such comparisons allow students to easily analyze both methods and understand their role in practical medicine.

3. Interactive Methods

- Teaching through video materials – Demonstrating videos of real surgical procedures.
- Case studies on diagnosis and treatment (problem-based learning) – Students engage in discussions on real clinical cases.
- Brainstorming method – Students generate ideas on ureterolithiasis treatment methods.

Through these interactive approaches, students can reinforce their knowledge of endoscopic ureterolithoextraction and contact lithotripsy, develop analytical thinking, and acquire practical skills. This, in turn, lays the foundation for medical students to provide high-quality treatment in their future medical practice

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