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Tryfanenko S.I. -

**Assistant of surgical and pediatric dentistry department
Bukovinian State Medical University, Ukraine**

*Трифаненко С.І.-
асистент кафедри хірургічної та дитячої стоматології
Буковинського державного медичного університету, Україна*

**ASSESSMENT OF THE PRACTICAL CLASSES DEDICATED TO ORAL AND FACIAL
TRAUMA FOR THE 4-YEAR STUDENTS OF THE DEPARTMENT OF DENTISTRY OF
BUKOVINIAN STATE MEDICAL UNIVERSITY**

*ДОСВІД ПРОВЕДЕННЯ ПРАКТИЧНИХ ЗАНЯТЬ ІЗ ТРАВМАТОЛОГІЇ ЩЕЛЕПНО-ЛИЦЕВОЇ
ДІЛЯНКИ СТУДЕНТАМ 4-ГО КУРСУ СТОМАТОЛОГІЧНОГО ФАКУЛЬТЕТУ
БУКОВИНСЬКОГО ДЕРЖАВНОГО МЕДИЧНОГО УНІВЕРСИТЕТУ*

Summary. Work education program of the subject "Dental surgery" for the 4-year students of the Department of Dentistry of BSMU deals with the topic "Oral and Facial Trauma". During practical classes students study head and neck injuries which often occur in the structure of dental diseases. Due to the fact

that the educational material is quite difficult for perception and learning students have difficulties in mastering it. Usually, while answering or writing tests students make mistakes in choosing the treatment tactics of the oral facial injuries, which is exactly the treatment scheme and the surgical sutures choice. That's why it's necessary to develop new creative methods of the material explanation for the students' better perception and mastering. The research deals with the use of active education methods to provide a high-quality material mastering.

Keywords: jaw-facial area, wound, bleeding, surgical suture.

Резюме. Робоча навчальна програма з дисципліни «Хірургічна стоматологія» для студентів 4-го курсу стоматологічного факультету БДМУ включає в себе розділ «Травматологія щелепно-лицевої ділянки». На практичних заняттях студенти вивчають травми голови та шиї, які часто зустрічаються в структурі стоматологічних захворювань. Зважаючи на те, що навчальний матеріал досить складний для сприйняття та засвоєння, у студентів виникають певні труднощі у їхньому вивченні. Як правило, студенти, при усних відповідях та написанні контрольних робіт, часто допускають помилки при обиранні правильної тактики лікування пошкоджень м'яких тканин щелепно-лицевої ділянки, а саме алгоритму лікування та обиранні видів хірургічних швів. Саме тому, виникає необхідність креативних методик пояснення навчального матеріалу для його кращого сприйняття та засвоєння студентами. У роботі описано застосування активних методів навчання для забезпечення якісного вивчення навчального матеріалу з даного розділу.

Ключові слова. Щелепно-лицева ділянка, рана, кровотеча, хірургічний шов.

The topicality of the work: oral and facial injuries occur in peace and military times. Situation in Ukraine since Revolution of Dignity is still tense (February 2014). Soon after the revolution there was an Annexation of Crimea and nonofficial war in the east of Ukraine which caused numerous deaths and injuries among civil population. Next acts of terror took place in Kharkiv and Odesa. The events demand urgent medical reaction to prevent possible serious complications caused by injuries especially of head and neck which may end up tragically. That's why a high-quality mastering of the education material from the unit "Oral and facial trauma" is still topical.

The aim of the research is to improve the level of the learning material mastering by the 4 year students, investigate the effectiveness of teaching the subject "Dental surgery", and the Module 3 "Oral and facial trauma" in particular.

Materials and Tools.

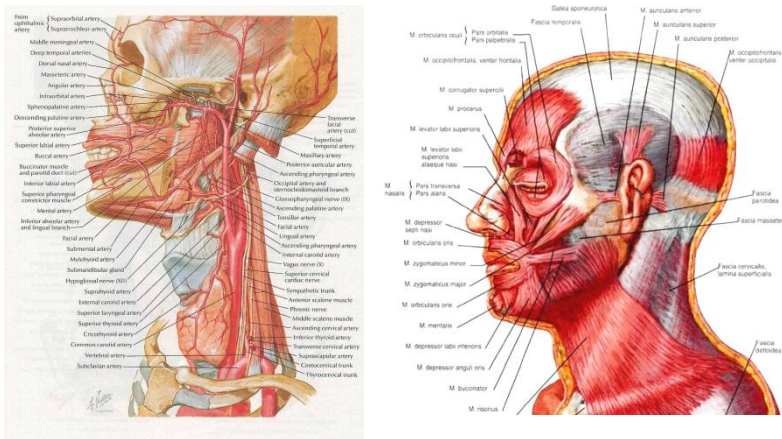
Brainstorming is the main method of teaching chosen by us. Brainstorming is a widely used technique of producing new ideas for solving scientific and practical problems. Its aim is to develop a collective creative problem solving. The use of the methods allows resolving such tasks:

1. To connect theoretical and practical tasks;
2. To activate the students' educational activity;
3. To develop the skills of focusing attention on solving the topical task;
4. To form collective thinking skills.

Materials and supplies for the practical class are the plaster casts of the jaw-facial area, the skull models, tables, posters and the photos of the patients who have injuries of the jaw-facial area. The results of the work were determined with the help of statistical analysis of the students' marks.

At the beginning of the classes we evaluate the level of the students' knowledge with the help of the test. After that we focus on the clinical anatomy, etiology, pathogenesis, clinical course, and injuries diagnostics. To compare with the traditional teaching methods we evaluate the students' knowledge according to the traditional grading scale.

After testing we focus on the clinical anatomy of the jaw-facial anatomy, we describe the build of the jaw-facial bones, the run of the main neurovascular bundles and places of the muscle fastening (Pic. 1) [4, p 42].



Pic. 1 The main neurovascular bundles are depicted on the face JFA. [4,p 42]

Then we model a clinical picture of the jaw-facial injury. After that students have to set up a treatment algorithm of the injured area. [1, p 356; 2, p 412; 3, p 212; 5, p 378]

Next we discuss possible ways of solving the problem, that is:

1. To prevent pain, traumatic, hemorrhagic shock;
2. To stop bleeding;
3. To prevent a possible aspiration, valvular, obturation, dislocation assfixation
4. To investigate possible connected injuries of the facial bones;
5. To choose the right method of anesthesia;
6. To choose the suture and material; and surgical sutures variants;
7. Methods of the initial surgical wound treatment;
8. To subscribe the medical wound treatment of the face soft tissues.

Having observed the treatment stages the students are offered to do the initial wound treatment using the plaster casts of the oral facial soft tissues (Pic. 2).



Pic.2 Students are working with the plaster casts of the oral facial soft tissues

At first we discuss different techniques of surgical sutures. For instance, square knot, simple interrupted suture, continuous suture, mattress suture and buried suture (Pic. 3, 4).

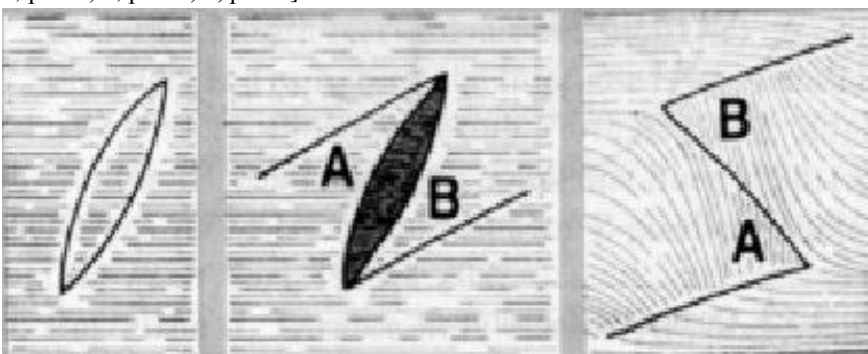


Pic. 3 Suturing techniques: mattress suture, continuous, interrupted suture.



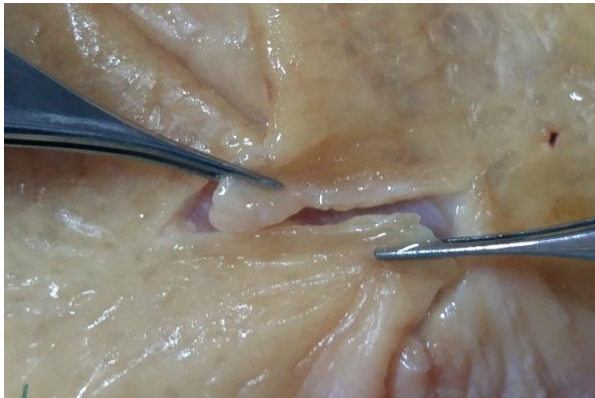
Pic. 4. Suturing techniques: mattress suture, continuous, interrupted suture. Continued.

After students master the surgical suturing techniques they get a model of a wound of the soft tissues on the plaster cast. For instance, a bite wound with a lack of soft tissues. Students who have mastered the material well know that it's impossible to suture the wound edges without an excessive tension as it causes wound disruption. That is why optimal method of the initial wound treatment is the rhomboid (Limberg) flap (Pic. 5). [1, p 356; 2, p 412; 3, p 212; 5, p 378]



Pic.5 Limberg skin plastic with shifting triangle flaps.

Stages of the initial wound treatment presented in the pictures 6,7.



Pic. 6 Dissections for forming the triangle flaps. Pic.7 Limberg skin plastic with shifting triangle flaps.

At the end of the class there is a test to check skills and correct mistakes (Pic. 8) and evaluate the students' knowledge.



Pic. 8 Testing students' practical skills

Discussing the investigation results. A positive fact is that approximately 72% of the students have quite enough residual knowledge that is 1 point higher than the previous time. Thus, 10 students out of 14 are better in mastering the knowledge. Practical classes with plaster casts comparing to those with pictures in the books give a 100% result in mastering the suturing techniques. This method helps to cope with the material easier which helps students in writing tests.

Conclusions.

1. The use of the method “brainstorming” helps in mastering the material and improves the test results. The number of negative marks is minimal, and in some groups there are no negative marks at all.

2. The proposed method of teaching develops suturing skills, allows choosing alternative ways of the soft tissues plastics, stimulates active medical thinking

and optimal choice of the medicine for the local and general treatment of the soft tissues injuries. 72% of the students do better in their final test.

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