

#### MEDICAL STUDENTS' ANATOMY KNOWLEDGE RETENTION THROUGH THE SITUATIVE LEARNING AND TEACHING IN PRACTICE

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**Key words:** *learning anatomy through practice, situative learning, transferable skills, students understanding, medical education*

Classroom learning differs from activities involved in situative learning embedded within activity, and background. Situative practice theory posits that learning is unintentional and situated within authentic activity, context, and culture. It allows students to interact and communicate in professional manner and develop their professional practice. They have to utilise a lot of transferable skills as communication, presentation, proving their integrity, ability for team work, and using group work too. Teaching anatomy to medical students and medicine allied programmes through practical courses and seminars as dissection, tutorials with models and prosections, situative learning is valuable and highly rated by the students in medical education as a tool for better understanding and knowledge retention. There is applied deep unintentional aim to develop spatial awareness and relation in complexity. The benefits and difficulties depend on facilities background, lecturers' availability and students' interest. Using qualitative questionnaire students appreciated practical impact in medical education and they reported as very beneficial to understanding the topic and subject itself, students engagement, social interaction and team work. Other interesting ideas were discuss through the open questions with stimulating suggestions to improve learning and teaching anatomy. This study gives an insight in feedback from both, the students and lecturers perspectives. It highlight different acquired skills applied through situative learning to aid and endorse professional development and students' ability to interact in authentic context. It brings discussion on possible impact on students' interest on topic, sharing knowledge through peer teaching and specialist communication and presentation.

#### STRENGTH PROPERTIES OF THE INGUINAL LIGAMENT AND APONEUROSIS OF THE EXTERNAL OBLIQUE ABDOMINAL MUSCLE IN MODELING OF THEIR DAMAGE

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**Key words:** *inguinal ligament, damage, abdominal muscle*

**Aim.** Is the study of the dynamics of physico-mechanical properties of the inguinal ligament and

aponeurosis of the external oblique abdominal muscle, depending on the nature of the lesion.

**Material and Methods.** The study was carried out on the basis of the Bureau of Forensic Medical Examination, Kursk, on 100 corpses of men, the average age of which was  $72.5 \pm 0.5$  years, who died from diseases not associated with pathology of the abdominal organs. Six series of experiments were conducted. The body type was determined by the index according to Lavrova T. F., the parameters of the inguinal canal before and after injury of the inguinal ligament. The mechanical damage to the inguinal ligament and aponeurosis of the external oblique abdominal muscle was simulated the crossing by 50% and perforation with a surgical needle (developed by the device). The control group consisted of undamaged samples. The data obtained were processed statistically on a computer.

**Results and Discussion.** It is established that the inguinal ligament damage in the transverse plane at 50% reduces the strength limit by 11.4%, the perforation of the inguinal ligament with needles reliably reduces its strength limit by 41.2% and increases its plastic deformation by 74.5%. The same dependence was observed in the study of the aponeurosis of the external oblique abdominal muscle.

**Conclusions.** Perforation of the inguinal ligament with surgical needles significantly reduces its strength properties in 1.7 ( $p=0.05$ ) times, whereas the crossing by 50% reduces them only in 1.1 ( $p=0.05$ ) times, which can be explained by the difference in areadamage.

#### EXPERIMENTAL STUDY OF THE HEMOSTATIC AND ANTI-ADHESIVE PROPERTIES OF MESOGEL IN THE CONDITIONS OF BLOOD AND BILE LEAKAGE IN LIVER INJURIES

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**Key words:** *mesogel, hemostatic activity, liver injuries, blood, bile*

**Aim.** Is to study in the experiment the hemostatic and anti-adhesive properties of Mesogel in conditions of blood and bile flow.

**Material and Methods.** In vitro in two series of experiments in 55 studies, using the method of spectral analysis, the character of the change in the chemical properties of Mesogel in interaction with native blood and bile was studied. Under conditions of acute and chronic in vivo experiments, the time of bleeding stop and the amount of blood loss in a standard liver injury was studied in 90 rats,